THE
Genesee Farmer.
A PRACTICAL SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES. ROCHESTER, N. Y., JULY, 1860. No. 7.

AGRICULTURAL STATISTICS OF CANADA.

THE Bureau of Agriculture in Canada issued circulars of agricultural queries to the Presidents of the different county societies, and received seventy-two replies from Upper Canada and thirty from Lower Canada.

The wheat crop in Upper Canada last year appears to have sustained little damage from the midge or weevil. Of the seventy-two reports, forty-two state that no mischief was done by this insect to winter wheat; eighteen, that very slight injury was done; eight report serious and extensive injury—say from 10 to 25 per cent.; and three report a loss of 50 per cent.

The remedy for the midge universally given is, to to sow early kinds of winter wheat very early, and the *Fife* spring wheat, either very early or not till after the 20th May. The *Soules*, *White Flint*, and *Blue Stem*, and also the *White Kentucky*, are mentioned in very many of the returns as the earliest and best winter wheat, and the Fife as the best spring wheat. Good draining and good cultivation are much recommended. Six returns report serious injury from frost on the 5th of June.

The county of Carleton gives the highest yield of wheat—winter wheat, 28½ bushels per acre; spring wheat, 22¾ bushels. The total average of Upper Canada is, winter wheat, 21 bushels per acre; spring wheat, 18¾ bushels. It is said that this is reliable. If so, it speaks well for the skill and intelligence of Canadian farmers. It is 16 per cent. above the average of the last twenty years.

Five years ago, there was comparatively little spring wheat sown in Canada—not one-tenth as much as winter wheat. Now it is estimated that there are twice as many acres sown with spring wheat as with winter wheat. This great change is chiefly owing to the invasion of the midge.

The total average yield of spring wheat in Lower Canada is 13 bushels per acre. The midge seems to have done considerable injury. The general remedy suggested is, to sow very early or very late; and one writer recommends running a rope steeped in turpentine over the heads when in blossom. The *Black Sea* variety seems to be most generally sown.

The average yield of barley in Upper Canada is 27½ bushels per acre; in Lower Canada, 23 bushels. In the latter Province, more attention is paid to this crop than formerly.

Rye is grown to a considerable extent in Lower Canada, but the average yield is only 13 bushels per acre. In Upper Canada, fifty of the returns report that there is very little or none grown. The average yield is 18 bushels per acre.

In Upper Canada, only thirty-seven returns mention Indian corn, the average of which is a little over 40 bushels per acre.

Of oats, two counties in Upper Canada report an average yield of 50 bushels per acre. The total average is 34½ bushels. In Lower Canada, the average is 22½ bushels per acre.

The hay crop last year in Upper Canada was very deficient. The reported yield varies from 500 lbs. to two tons per acre. Out of the seventy-two reports, forty-eight use gypsum or plaster as a top-dressing, and eighteen use barn-yard manure occasionally.

Of turnips in Upper Canada, sixty-nine of the returns mention that this crop is grown very successfully, and that its cultivation is largely on the increase.

Flax and hemp are little grown, but in some sections of Upper Canada its cultivation is receiving some attention.

There is a great improvement reported in the Potato crop. The yield in 1858, averaged 125 bushels per acre; last year it was 176 bushels. The rot prevails only to a very limited extent. The *Irish-cup* is generally recommended as freest from the rot—though one return states it to be the worst. New land and dry situations are most relied upon as preventives.

"THE VALUE OF MANURE DEPENDS ON THE FOOD —NOT ON THE ANIMAL."

UNDER the above title, the Connecticut *Homestead* copies an article on the "Value of Manure from different kinds of Food," which appeared in the *Genesee Farmer* for May, page 143, and remarks as follows:

"We find a most instructive and suggestive article on food and manure by the Editor of the *Genesee Farmer*, himself a pupil and friend of Mr. LAWES of Rothamsted. Before giving Mr. LAWES results, he makes some statements which we quote and admit as in general true; still must take exception to their universal application."

Here follows our article, the following extracts from which, the editor, himself a chemist by profession and a pupil of LIEBIG, takes exception to:

"People talk of horse, or cow, or sheep, or hog, or hen, manure, as if these manures had a fixed value, irrespective of the food consumed by these different animals.

"The animal exercises very little influence on the manure.

"If the liquid and solid excrements were all saved, they would be just as valuable when obtained from a horse as from a hen, *if the food consumed was the same.*"

This is not exactly as we wrote it—some slightly qualifying sentences being omitted; still, we admit the general fairness of the quotation.

The *Homestead* says:

"In the first few sentences quoted we think the editor takes a little too strong ground. Think—the value of manure depends not alone on the amount of phosphoric acid and nitrogen contained in it, without reference to its bulk. Cow manure is bulky, wet, and needs care in composting to preserve its value, which makes it still more bulky; besides, it contains weed seeds often, which pass with the food through the animal. So does horse manure; but sheep and hen manure do not—the digestion of these animals is more perfect. In the case of hens, their respiration is so very quick, and the digestion so perfect, that the manure must, we think, be considered of a higher value than other kinds. Neither is the bulk and perfection of digestion of food the only things not taken into the account. It is well known that the manure from growing animals, or those that are producing labor, milk, wool, or a fat, varies accordingly. This is a most important thing to be had in view. Milch cows yield a very poor manure, so do young animals; oxen at hard labor little better, but full grown animals not at hard labor, though fed on precisely the same food, yield a much richer manure. If rich food like oil-cake is fed, little besides the fatty matter in the food is retained in the system. The waste of muscle is little, and all the nitrogen appropriated but counterbalances this waste, which is chiefly found in the manure, and the bony frame of the animal being perfect, the phosphates, etc., are not withdrawn from the food on its passage through the animal, so that the manure contains almost all the substances of value originally in the food."

We admit that the *bulk* of the manure, its humidity, etc., ought to be taken into consideration in determining its value. But, "*if the food consumed was the same,*" there would be little difference in the bulk of the manure from a horse, a cow, or a sheep, except so far as it was caused by more or less water. Cow manure contains more water than horse manure; but this, so far from being an objection, is considered an advantage in a well-managed barn-yard, where the manures from the different animals are mixed together. The cold and sluggish hog and cow manure check the too rapid fermentation of the horse and sheep dung. BOUSSINGAULT, who has given much attention to this subject, and who will be regarded as good authority, says:

"The composition of horse-dung would lead us to infer that its action must be more energetic than that of cow-dung. Nevertheless, agriculturists frequently consider it as of inferior quality. This opinion is, even to a certain extent, well founded. Thus although it be acknowledged that horse-dung covered in before it has fermented, yields a very powerful manure, it is well known that in general the same substance, after its decomposition, affords a manure that is really less useful than that of the cow-house. This comes entirely from the fact that the droppings of the stable, by reason of the small quantity of moisture they contain, present greater difficulties in the way of proper treatment than those from the cow-house. Mixed with litter and thrown loosely upon the dung-hill, horse-dung heats rapidly, dries, and perishes: unless the mass be supplied with a sufficient quantity of water to keep down the fermentation, and the access of air be prevented by proper treading, there is always, without the least doubt, a considerable loss of principles, which it is of the highest importance to preserve. I can give a striking instance of this fact in the changes that happen in the conversion of horse-dung into manure in the last stage of decomposition: fresh horse-dung in the dry state contains 2.7 per cent. of azote. The same dung laid in a thick stratum and left to undergo entire decomposition, gave a humus or mould, from which, reduced to dryness, no more than one per cent. of azote was obtained. I add, that by this fermentation or decomposition, the dung had lost nine-tenths of its weight. From these numbers every one may judge how great had been the loss of azotized principles. In practice, however, little care is bestowed on the preparation of horse-dung; the fermentation is rarely, if ever, pushed to this extreme point indeed, but it is not the less true that it is constantly approached in a greater or less degree; and that the consequences, although not altogether so unfavorable as those which I have particularly signalized, are nevertheless extremely destructive. All enlightened agriculturists have, therefore, long been aware of the attention necessary to the management of horse-dung, which *requires a degree of care, that may be perfectly well dispensed with when the business is to convert the dejections of horned cattle into manure.* To obtain the best results in the management of

horse-dung, it appears to be absolutely necessary to give it a much larger quantity of moisture than it can ever receive from the urine of the animal; if it be not well watered it necessarily heats, dries, and loses both in weight and quality; while, by being kept properly moist, it produces a manure, which half-rotted, is of quality superior, or at all events equal, to the same weight of cow-dung."

Cow-manure, then, instead of needing more "care in composting to preserve its value," is, according to BOUSSINGAULT, more easily preserved than horse-dung. The increased bulk of the cow-dung, *caused by its greater humidity*, when mixed with other manures, is no detriment. Its increased bulk, caused by the alleged imperfect digestion, must be so small as not to materially affect its value—even granting, what we are by no means prepared to do, that cows cannot extract as much nutritious matter from food as horses, hogs or sheep. It must be borne in mind, that we are supposing that the *same kind of food is consumed*. Admitting, for the sake of argument, that sheep extract from 100 lbs. of hay one or two pounds more of carbonaceous matter than cows or horses, and that consequently the sheep-dung obtained would be one or two pounds lighter than from the cows or horses, we can not think that such a slight difference in bulk would materially affect the value of the manure. The argument of the *Homestead* is that the 100 lbs. of cow-dung contains no more fertilizing matter than the 98 lbs. of sheep-dung, and that, therefore, the 98 lbs. is more valuable than the 100 lbs. *because it is less bulky*. To this extent the *Homestead* may be right, if the digestion of the cow is less perfect than that of the sheep.

When we said that "the manure derived from a given quantity of the same food consumed by a horse, a cow, a sheep, or a hog, varies very little, if at all, in composition or real value," we took it for granted that the condition of the animals was the same in all cases. A young animal, or one giving milk, whether a horse, a cow, a sheep, or a pig, doubtless extracts more phosphate and nitrogen from the food than an adult animal, or one not giving milk. But this is foreign to the question.

The *Homestead* says "Milch cows yield a very poor manure, so do young animals; oxen at hard labor little better; but full grown animals not at hard labor, though fed on precisely the same food, yield a much richer manure."

The manure from young animals and milch cows is somewhat inferior; but why it should be so in the case of *working animals* we can not understand. Will our friend of the *Homestead* explain? If you say that the working animals will digest their food better and abstract more of the carbonaceous matter, then the manure obtained will be less bulky, and, according to your previous argument, more valuable in consequence. Working animals may abstract more nitrogen from the food in order to sustain the wear and tear of their muscles; but, unless they increase in flesh, this would not lessen the quantity of nitrogen in the excrements, inasmuch as the muscles which are used up furnish just as much nitrogen as the new muscles abstract from the food.

DO ANIMALS CONSUME FOOD IN PROPORTION TO THEIR LIVE WEIGHT?

EDS. GENESEE FARMER:—I notice your remarks on my statement about feeding sheep. I will endeavor to make you understand what I do mean.

I mean that the same amount of grain—one lb. per day to each—of any kind that is raised in this part of the country (wheat excepted—I never feed much of it), will fat sheep weighing 140 lbs. as quickly, and make them gain more weight, than those weighing 85 to 100 lbs. The larger may eat more straw, as that I do not weigh out to them; and I can not see why Mr. LAWES, of Rothamsted, with all his chemistry and science, should know any more about feeding stock than the practical man that has read of Mr. LAWES' experiments, and tried many of them by the most scrutinizing practice. True, I have not had turnips like Mr. LAWES to practice with; but I have many, many times, experimented with the different kinds of grain, oil-cake, meal, and peas, and with the different kinds of cattle and sheep, feeding them with my own hands for longer than the average life of man; and if I don't know as much about feeding sheep as Mr. LAWES of Rothamsted, I must be a greater dunce! *That is all;* but there need be no dispute about it between you and me. It can be very soon decided by any practical feeder; let it be one who does the feeding, and not by one who sends Patrick, Jemmy, or even Sawney. JOHN JOHNSTON.

Near Geneva, N. Y., May 30, 1860.

P. S.—The sheep must be about equal condition when put up. J. J.

REMARKS.—It would appear from the above, that whatever may be his opinion, Mr. JOHNSTON'S experiments do not show whether sheep do or do not consume food in proportion to their live weight. They show simply that large sheep fatten more easily than smaller ones. The same fact was brought out in Mr. LAWES' experiments, as we stated in the June number of the *Farmer*. So far Mr. JOHNSTON and Mr. LAWES agree. Mr. LAWES' experiments, however, showed also that the large sheep eat more total food (not grain simply,) than the smaller sheep. Mr. JOHNSTON did not determine this point. He says "the larger may eat more straw, as that I do not weigh out to them."

We do not know that Mr. JOHNSTON has ever stated that sheep do not consume food in proportion

to their live weight; but others assert it, and quote him as their authority, while his experiments, clearly, have no bearing on the question.

We do not wish to be hypercritical, but we do not think it has been proved that, *irrespective of the breed*, "the same amount of grain will fat sheep weighing 140 lbs. as quickly, and make them gain more weight, than those weighing 85 or 100 lbs." True, it has been proved that, in proportion to the food consumed, the large Cotswolds will fatten more rapidly than the smaller Leicesters, and still more so than the yet smaller South-Downs; but it does not follow from this that, irrespective of the breed, the larger sheep will fatten most rapidly for the food consumed. We do not think our experienced friend Mr. JOHNSTON wishes to be understood as making such an assertion. A long-legged, big-boned, thick-eared, slab-sided, bare-bellied sheep, however large, would not fat as readily for the food consumed as a smaller, well-bred sheep of the same breed.

The experience of breeders seems to indicate that early maturity and a tendency to fatten rapidly are obtained at the expense of size. The old-fashioned Leicester sheep was a much larger animal than that produced by long years of careful selection and judicious breeding by ROBERT BAKEWELL. MORTON'S *Cyclopedia of Agriculture* says "there is every reason to believe that BAKEWELL'S flock was composed of the old Leicester, the then common breed of the district. These were characteristics of the long-wooled breeds of the day—large, ungainly, and coarse-boned animals, seldom ready for the butcher before they were three years old, at which age they weighed from 25 lbs. to 35 lbs. per quarter—the wool being long and coarse in the staple, and weighing about 10 lbs. per fleece. It was obvious that the large carcase of these breeds was connected with, and counterbalanced by, a slow development of fat; while the rich food consumed by two sheep was quite adequate to the maintenance of three of smaller size, whose aggregate weight in mutton and wool would still be greater."

The result of BAKEWELL'S labors was to increase the early maturity and fattening properties of these sheep; to develope the more valuable points of the animal, and to reduce the weight of bone and offal; and this was not accomplished without reducing the total size and weight of the sheep, and, what is more to be regretted, without lessening the growth of wool. Now, no one will claim that one of these old Leicester sheep, weighing 140 lbs., would fat as quickly on the same amount of food as an improved Leicester weighing from 85 to 100 lbs.

We have no doubt that what Mr. JOHNSTON *means* is true; but what he *says*, when understood as a general principle, applicable to all cases and under all circumstances, without qualification, is, to say the least, destitute of satisfactory proof.

Our correspondent's remarks in regard to Mr. LAWES are uncalled for. Few men have done more for agriculture than he. None are entitled to more respectful consideration. But the question under consideration is not one which can be settled by loose observations, even if the observer is a man possessed of the judgment, sagacity and experience of our respected friend, JOHN JOHNSTON. It is a question which can be answered only by actual experiments. Mr. JOHNSTON claims to have made such experiments. But the experiments do not show how much food either the large or small sheep consumed. They may show which sheep were the most *profitable;* but that is not the question. Mr. LAWES' experiments, on the other hand, show exactly how much food was consumed, how much the sheep weighed, and how much they increased in weight. The facts were all ascertained, not by "Patrick or Jemmy," but by gentlemen every way qualified for the task, and whose special business it was to see that every thing was done with care and accuracy. Nothing was left to chance. There was no guess-work. The experiments were made for the simple purpose of ascertaining truth. The facts as ascertained are put on record. No one can doubt that they are facts. Mr. JOHNSTON should so regard them; and if he has any counter-facts, let us have them, and they shall receive due consideration. Do not say "I have fed cattle and sheep all my life, and I ought to know whether animals consume food in proportion to their live weight as well as Mr. LAWES, or else I am a great dunce." If it was a matter of opinion, the argument would be a good one; but it is a question of facts—and Mr. LAWES has ascertained the facts, and Mr. JOHNSTON, so far as appears to the contrary, has not. EDS.

CHESTER COUNTY HOGS.—In the June number of the *Farmer*, B. H. WILDER asks for "a description of the Chester county hogs, and their peculiarities." I would say that, from the experience I have had, I like them much. They are distinguished for their early maturity, great facility for fattening, and are very quiet and docile. Some of these hogs, when well fed, attain to a weight of six or seven hundred lbs. They are well covered with bristles, and, unlike the Suffolk, can endure the heat and cold. The Chesters will probably make as much pork (and of a superior quality), on a given amount of food, as any other breed. Where the Chesters are known, they are universally esteemed.—D. CUTTS NYE, *Lexington, Mass.*

SPIRIT OF THE AGRICULTURAL PRESS.

Sheep Washing.—A correspondent of the *American Agriculturist* gives the following plan: A large vat made of plank, about ten feet long, four feet wide, and three and a half feet deep, is placed near a stream where there is sufficient fall. Troughs are laid to conduct the water, with their lower ends standing about two feet above the vat. Two boys, each holding a sheep soaking at one end of the vat; while two men, standing on the ground outside the vat, each hold a sheep under the stream running from the troughs. It requires but little squeezing of the wool, and much less time to wash them well than by the old method. We gave a full description of this method in the *Genesee Farmer* for May, 1859.

Transporting Bees.—A correspondent of the *N. E. Farmer* gives the following directions for transporting bees: "Spread down a sheet, and set the hive on it; then bring up the corners and tie over the top, or invert the hive, and put over the bottom a piece of muslin eighteen inches square, fastened at the corners with carpet tacks. A wagon with elliptic springs is best for conveying them. In all cases, the common box hive should be bottom up, to avoid breaking combs. When moved late in the season, they should be set several feet apart.'

The Eyes of Horses and Cattle.—In the *New England Farmer*, a correspondent gives the following remedy, when horses or cattle injure their eyes so as to bring on a white substance or film. He says: Take fresh butter, newly churned; melt about a tablespoonful, and turn it into the ear opposite the eye injured, being careful to hold the ear tight together, so that they shall not, by a violent shake of the head, throw it out of the ear. This remedy, he says, may be safely applied, if you do not use them when the film is coming off.

To Kill Vermin on Catle or Fowls.—A writer in the *New England Farmer* says: "Take common lamp oil and rub it in well back of the ears and all down the back. Do this once a week, and the vermin will disappear. It is safe. Tobacco will kill lice, but should be used cautiously. Rub lamp oil on the back of the head, under the wings, and over the posteriors of any fowl once a month, and it will clear out all lice."

Tobacco Stalks.—One of our exchanges says: "We made last year a better crop of potatoes, manured exclusively with tobacco stalks, than we have ever made with a free use of guano. The stalks from four acres will manure one acre abundantly."

A Good Creed on Plowing.—A correspondent of the *Country Gentleman*, says: "I believe, 1st, that there are some soils which should not be plowed deep, such as the light sandy, the gravelly, the peaty, etc., when quite porous and friable, and resting on a subsoil of the same character; 2d, that all clayey and loamy soils may be deepened with advantage, *provided* it be done at the rate of an inch or so in a year, and with the addition of twelve to twenty loads of good manure, and *provided* there is no stagnant water near the surface, or a necessity for draining; and 3d, that the safest and best way of proceeding, is to deepen only a little at a time, as a guide for future operations."

Cheap Apparatus for Giving Salt to Sheep. "R. B." writes to the *Boston Cultivator*: "Last year I carried a large sugar hogshead, for which I paid 38 cents, into the field and laid it upon the ground, making it fast—one head having previously been taken out. I was careful to smooth off all protruding nails or rough substances liable to pull the wool. Then upon the inside of the other head I nailed a 7 by 9 box to contain the salt, and the work was completed—the whole costing, in money and labor, about 50 cents, and so far as necessity is concerned, it answers a very good purpose."

Dogs and Bell Sheep.—An Indiana sheep farmer, in the *Stock Journal*, says that a number of sheep wearing bells, in any flock, will keep away dogs; he would allow ten bells to every hundred or hundred and fifty. When sheep are alarmed, they run together in a compact body, in which act all the bells are rung at once; which frightens the dog, or makes him think some one is on his track—so he leaves without taking mutton.

Black Hawks the best Roadsters.—The *Wisconsin Farmer* says: At the Agricultural Show at St. Louis, Mo., last fall, $1,000 was offered as a premium for the best roadster stallion. The judges, from the great number offered, selected six which were deemed the best, and then made a critical examination of them to find the best one. Of these six, five were the sons of Black Hawk, and the sixth a grandson.

Profits of Fruit.—In the *N. E. Farmer*, mention is made of the Messrs. Clapp, of Dorchester, Mass., who, Col. Stone says, by systematic culture, raised each year, on five acres of land planted with apple trees, $600 worth of currants as an under crop; while at the same time, they had a large crop of the best apples. Their profits have been from $2,500 to $3,500 per annum.

PLANTING TREES.—A correspondent of the *American Agriculturist* gives the following points to be kept in view in planting out trees of all kinds—especially fruit trees:

1st. A portion of the roots should be so near the surface, and in so porous a soil, that they can enjoy air and the sun's warmth.

2d. Part of the roots must go deep enough to secure abundant moisture or sap at all times—particularly when the surface soil is temporarily parched by drought.

3d. The subsoil, so far down as the roots penetrate, should be of good character; that is, it should have been so exposed to the action of air as to destroy the soluble proto-salts of iron, magnesia, etc.; and also organic acids—otherwise these substances will be absorbed and act as poison.

PROFITS OF SHEEP RAISING.—A correspondent of the *North-Western Farmer* makes the following statement, showing how wool-raising pays those who manage it as it should be: "Last season I clipped 250 sheep; the wool sold for $552. I have sold within the year 74 sheep, which is equal to the number of lambs raised, for $814—making $1,366. My sheep are of the Spanish Merino breed, and mostly ewes." He considers sheep-raising the most profitable business a farmer can engage in.

SURFACE MANURING.—A correspondent of the *Country Gentleman* says: A farm in this neighborhood, that had been greatly exhausted—the meadows yielding but little, and that of an inferior quality—has been restored to fertility by its present owner by means of surface manuring the meadows, and thorough scarifying each spring. They now yield a heavy crop of the best kind of hay.

GLASS PANS FOR MILK.—An English farmer says, when he first took to dairying on a large scale, he laid out $100 in glass pans, because they looked so well in a dairy. On further acquaintance with them, he has come to the conclusion that they are the cheapest things (even at one dollar each,) that a farmer can use—they are washed and wiped and kept clean with so little trouble.

IMPROVING SWINE.—A writer in the *Prairie Farmer* says the farmers of Iowa are wide awake on the hog question. They are improving their stock by a cross with the Suffolks and Chester Whites.

PROFITS OF RHUBARB.—A writer in the *Working Farmer* says from three-fourths of an acre he sold $500 worth of rhubarb, or pie-plant.

THICK OR THIN SEEDING OF OATS.—A correspondent of the *Country Gentleman* relates an instance where 40 bushels of oats per acre were obtained from one bushel of seed; and only 33 bushels per acre from 3½ bushels of seed. The thick seeding, however, produced much the most straw, and he thinks when oats are sown for fodder they should be sown very thick.

ASHES.—A gentleman writing to the *Ohio Farmer* says: Some farmers have a very foolish habit of selling their ashes for a dime or a shilling per bushel, when they are worth more than twice that amount to spread on their land. It don't pay, he says, to sell ashes at this price, and then buy lime to manure our farms with.

BLOODY MURRAIN.—An experienced correspondent of the *Ohio Cultivator* says where cattle have access at all times to running water, they will not get the murrain. If any cattle are affected with murrain, remove them from all other stock, and let them be as quiet as possible. Rest and quiet will cure them, if anything will.

BUG-EATEN PEAS.—A correspondent of the *Homestead* says he selected thirty fair looking peas, not badly eaten. Two only of the thirty ever made their appearance above ground, and they were so slender as never to amount to anything; and he is satisfied that those which are eaten to a shell will not vegetate.

BEST LAYERS.—A correspondent of the English *Poultry Chronicle*, who seems to have had considerable experience, states that the "best layers all the year round, for size and quality of egg," are a cross between the game cock and the Golden Spangled Hamburgh hen.

SHORT-HORNS IN CALIFORNIA.—The *California Farmer* states that the Durham bull, "Earl the Fourth," sent to California by J. D. PATTERSON, of New York, has been sold to Capt. J. B. FRISBIE, of Vallejo, to be taken to Solano County. The price paid was $4,000.

TREE PLANTING CLUBS.—One of our exchanges, we do not know which, recommends young men to form "tree planting clubs." The idea is a good one. Let the young men in a village or town set apart a day in spring or autumn for the purpose of setting out shade and ornamental trees.

THE *Maine Farmer* chronicles the birth of a calf weighing 120 lbs. The same paper also alludes to a bull calf, most native, weighing when eleven months old, 890 lbs., and when a year old, 990 lbs.

ENGLISH PLOWS AND PLOWING.

JUDGE FRENCH, of Exeter, N. H., who has, within a year or two past, spent considerable time in Europe, contributes a very readable article on "English Plows and Plowing" to the last volume of the *Patent Office Report*. We make a few extracts:

The plows made by RANSOME & SIMES, which I saw on exhibition at the shows of the Royal Agricultural Society, perhaps rank as high, at present, as any plow in England. I was informed, at the warehouses of the manufacturers, at Ipswich, that their plow in common use as a seed plow, for two horses, weighs two hundred and eighty lbs., and its length twelve feet. It turns a furrow of eight or nine inches in width, and five or six in depth, which may be increased to one of ten by seven inches.

Actual experiment, at the warehouses in Boston, shows the average weight of American plows designed for the same work, with wheel and cutter, to be about two hundred lbs., and their average length about seven and a half feet.

The English implement is entirely of iron, of fine workmanship and finish, with two wheels, and is much less simple in its structure than the American; yet the American plow seems to be more firm and strong than the other. Indeed, the extreme length of the handles and of the beam of the English plow, notwithstanding they are of iron, gives to a hand accustomed to the American implement a feeling of insecurity, as if the material were elastic, and would not be stiff enough to control the work were a stump or fast rock to be encountered in the furrow. This apprehension, however, is idle in most English fields, which for a thousand years, perhaps, have felt the pressure of the plowshare.

But the difference between English and American plowing is fully as striking as that between the plows. The worst-plowed field which I saw in a summer's ramble through old England might be said, literally, to appearance, to be done better than the best-plowed field that can be found in a New England farm. There seems to be no such thing in England as a crooked or irregular furrow, but, however extensive the field, the work appears uniformly as straight as a line could be laid down by a civil engineer with his instruments; and whether the operation be really more thoroughly performed than with us or not, it has at least the merit of being accomplished precisely as the plowman desires.

Our first impression upon these observations would naturally be, that notwithstanding the English plow is more clumsy and expensive than the American, yet the former must have advantages of structure, which, for use in old and thoroughly-tilled fields at least, more than compensate for these objections. Yet this, however natural, would be a hasty conclusion.

Within twenty miles of Ipswich, where RANSOME'S highly-finished plows are manufactured, in a week which was spent on a farm and among intelligent farmers, in the county of Suffolk, an entirely different plow was generally in use—an implement so ungainly, so large and ill-fashioned, that it seems as if it must have been disinterred with the stone coffins of the Norman knights, which occasionally turn up in that neighborhood, or have been found in the antediluvian deposits of coprolites, for which Suffolk county is famous.

The plow referred to is that which is usually known in English books as the Norfolk plow, the peculiarities of which are, that it has but one handle, and that its beam, running upward at an angle of about forty-five degrees from the level surface of the ground, rests upon a frame-work supported by an axle, upon which are two wheels of about the size of the small wheels of a Yankee wagon.

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And thus we have the mystery of English superiority in plowing solved, by the superior skill of English plowmen, without necessarily admitting the superiority of English plows. * * *

The question, however, between English and American plows of modern construction is still open: Does the weight, or the length, or does any other peculiarity of the English plow, upon the whole, contribute to the utility of the implement?

It may be said that differences in the soil, or the condition of the surface, render any such inquiry fruitless to us, because a plow that may be suitable and best for old fields in England, may be quite unfit for the newly-cleared lands of the New World. Such, manifestly, is the fact, but much of this New World has already been converted into broad, clear fields, and much of our best alluvial and prairie land becomes, by a few years culture, as free from obstruction as the oldest fields of Europe.

It is a fact well known to practical farmers, that the draft of the different plows, turning the same width and depth of furrow, in the same field, and performing the work in substantially the same manner, varies so much as to be plainly practicable in its effect upon the team. The use of the dynamometer, by which the power exerted upon the plow, or, in a word, the draft can be actually measured, has confirmed and made definite this point, which before rested upon conjecture, or mere estimate. It has thus been ascertained, by a trial of ten different plows, each of a different make from the others, that the difference in draft, in performing precisely the same work, amounted to forty-five per cent. The experiment was made in turning a furrow with each plow, nine inches in width by five in depth, in five different kinds of soil, and carefully noting the results as shown by the dynamometer. Taking the average of the five trials, it appeared that, while the plow of lightest draft required a power of three hundred and one lbs. to work it, the plow of the heaviest draft required a power of four hundred and forty-one lbs. to perform precisely the same work, and the other eight required the greatest possible variety of power between these extremes.

At a trial reported in the transactions of the New York State Agricultural Society for 1848, p. 61, it was found that the average of resistance, or the draft of twenty-four different plows, tested by the dynamometer, ranged from two hundred and ninety-eight to four hundred and eighty-three lbs., showing that more than sixty per cent more power was required to move one plow than the other, in the work of turning a furrow twelve inches wide by six inches deep.

In another series of experiments, in the transactions of the same Society for 1849, p. 559, in a trial

of twelve different plows, we find the draft to vary all along from two hundred and ninety lbs. to four hundred and ninety-three lbs., being a difference of seventy per cent. in performing the same work of turning a furrow of twelve by six inches. * *

The writer is not aware that any very reliable experiments have ever been instituted to test, by the dynamometer, the comparative draft of English and American plows. * * * *

The heavier the plow the greater the force necessary to move it along the surface. In a series of experiments published by Mr. PUSEY in the English *Agricultural Society Journal*, it appears that the average draft of nine different plows, in an empty furrow, was in proportion to the weight as three to four; that is to say, that a plow of three hundred lbs. weight required a force, as shown by the dynamometer, of two hundred and twenty-five lbs. to move it when not at work. By the same experiments, it appears that the average draft of the same plows, working and turning a furrow nine inches by five, was a fraction less than double their draft in the empty furrow. Later experiments confirm this result; and it may be taken as demonstrated that, in the use of the heavy English plow, about one-half of the ordinary force of the team is expended in moving the implement when at ordinary light work! * * * *

Taking, then, the draft of the plow in the empty furrow, which may be called the surface draft, to be three-fourths of the weight of the implement, and the weight of English plows for common work to be that given me at the factory of RANSOME & SIMES, two hundred and eighty lbs., and that of the American plows to be one hundred lbs., we have the difference in the draft, one hundred and thirty-five lbs., or three-fourths of the ffdierence in weight.

What do our Canadian friends, who use the English and American plows, say to these conclusions? The question is an important one. There may be advantages in the long handles and great weight which, on account of the increased steadiness of the work, counterbalance the extra power required to draw the extra weight of the plow. Thus, a plow with wheels weighs heavier than one without, yet it has been shown by the dynamometer that, owing probably to its greater steadiness, it draws easier than the same plow without wheels.

LAND FOR WHEAT CAN BE MADE TOO FINE.—In the *Genesee Farmer* for August, 1859, page 234, in an article on the Cultivation of Wheat, we remarked, "Wheat likes a firm, compact soil; and if left somewhat rough and cloddy, it is none the worse." Several of our correspondents differed with us on this point. Hon. A. B. DICKINSON, in an article in the *Rural New Yorker*, says, "All experienced wheat-growers will agree that wheat does much better when the soil is left a little coarse, or a portion of it in small chips, than when it is all pulverized and made fine." The *Boston Cultivator* copies the remark and adds, "There can be no doubt on this fact."

NOTES FROM CANADA WEST.

EDS. GENESEE FARMER:—To-day being so wet and stormy as to confine me to the house, I thought it would be a good chance to have a talk with you on agricultural matters generally. In your notes for the month in the May number of the *Farmer*, you say "spring wheat will succeed on a clover sod plowed up fresh." There is probably no section of Canada where spring wheat has been more extensively and successfully grown of late years than in this township. At first it was thought that a clover sod would answer for this crop; but repeated trials have proved that almost the worst method that can be adopted is to sow it on clover sod. The wheat grows finely at first and apparently promises well, but dies off in patches as the dry weather comes on, and at harvest is found to yield a light crop of straw and but little grain. This is probably owing to the great amount of carbonaceous matter derived from the decomposition of the clover, and perhaps also to the difficulty of getting a compost and bed on clover sod.

It is now generally conceded that spring wheat succeeds best after root crops, or even corn or barley, provided the stubble is plowed under immediately after harvest, and the soil left exposed to ameliorating effects of the frosts of winter. (*a.*)

You also say that Fife wheat is regarded as the most popular sort here. This was the case some years ago, but it is not so now. The flour from Fife wheat is of so dark a color and the wheat so difficult to grind, that the millers will scarcely purchase it at any price, and its growth is mostly confined to the back settlements, where the farmers have to consume what little wheat they can grow for home use.

The spring wheat most in demand is a new kind known as the Golden Drop, a few grains of which I send you. It is now pretty extensively grown, and is admitted to be the best spring wheat yet seen in Canada. It grinds as readily as fall wheat, and the bread made from its flour is but little if any darker than that made from Genesee flour. Not being so hard and flinty as the Fife, it may perhaps be more liable to suffer from the midge; but it is so productive that where even two-thirds of the crop has "gone to midge," the balance amply remunerates the farmer for his trouble. My father has raised this kind for the last two years and finds it as profitable as fall wheat. He sold his entire crop this year at $1.25 per bushel at the barn. (*b.*)

Farmers are perhaps not generally aware that wherever lime is sown upon the land it has the effect of producing a heavy growth of sorrel in a year or two afterward. The same is also the case to some extent where plaster is used largely. This plant contains a large proportion of oxalate of lime—hence its sour taste. The most effectual way to get rid of it is to sow unleached ashes, at the rate of two or three bushels per acre, on the land, with the first grass or clover grown after the application of the lime; and when sowing plaster, to mix a small proportion of unleached ashes with it.

You seem to deny the utility of soaking seeds in mineral solutions. (*c.*) Now it is undoubtedly true that the quantity of mineral matter that can be absorbed by the seed is but small; yet little as it is, it is sufficient to cause the plant to be more quickly developed during the first stages of its

growth, from coming in immediate contact with plant food that it would otherwise either not find in the soil, or have to send out roots to some distance in order to collect as much as would be adhering to, or absorbed by, the seed itself. In fact, this mineral food, perhaps, but acts as a stimulant to the young plant, and is not expected to produce any further difference in its productiveness than would be produced by the earlier maturing of the plant, and the giving it a better chance to get the start of the weeds.

There is no doubt Peruvian guano is a powerful stimulant to potatoes; but, unfortunately, its application is almost certain to result in the entire loss of the heavy crop thus grown, from the potato rot—which always seems to affect the plant where any ammoniacal manures are used. (*d.*)

Nobody complains of the pea-bug now-a-days—in this section, at least. The kind chiefly grown here is the *Golden Drop Pea*, which has never yet been known to have bugs in it.

Root crops will be extensively grown this year in Canada. The turnip crop last year was so productive that turnips were unsaleable, and but little hay was given to either cattle or sheep last winter. Many of our farmers are sowing an acre or two each of carrots this year, hoping to find them more saleable than turnips, which are not liked in or near towns for horses or milch cows. A great many would like to grow the Kohl-Rabi this year, but can not get the seed. It is to be hoped that some will be imported next winter in time for early sowing.

Father says the statements so frequently put forth by different agricultural chemists on the value of different animal foods as regards the manure produced from them, are greatly at variance with the principles of animal physiology; and that it would be well for chemists to know more about physiology. Had Mr. LAWES actually proved, by experiment, on wheat for instance, that each of the manures so made as given in his table, gave an increase of crop equal to the estimated value he puts upon it, it would have been a point of importance; but it does not appear that he did so. (*e.*) The value of a manure produced from any kind of food depends on the amount of animal secretions it absorbs while passing through the animal frame; and this again greatly depends on the power required to enable the animal to digest and decompose them. A fat animal gives off a larger amount of secretions than a lean one. If a fat animal is fed on straw, the straw will absorb a large amount of secretions, and the animal soon becomes poor and the manure diminishes in value; but the addition of three bushels of turnips per day to the straw and given to the animal will keep up its condition by giving the requisite supply of nitrogen and carbon, then the manure made will still continue to be rich. Again, an ox will consume 200 lbs. or more of turnips per day, and produce nearly that quantity of manure; while if fed on oil-cake, it will, perhaps, not consume more than 20 or 30 lbs. per day, and produce but a small quantity of manure. Consequently, the value of certain foods to produce manure does not depend on the nitrogen they contain; as, whether that is more or less, it must be all taken up by the animal frame, and enters into the blood and structures before it is given off in the manure. The easier the food is to digest, the more of it the animal can pass through its frame, and the manure it can make. I will, perhaps, have more to say on this subject another time. J. MACKELCAN, JR.

Hamilton, C. W.

REMARKS.—(*a.*) What we said was that, "unlike barley, spring wheat will succeed on a clover sod plowed up fresh." This we know to be the case. We said, however, that it would do better on land that had been summer-fallowed, or at least plowed the previous fall and cultivated in the spring. Our correspondent misunderstood our remarks if he supposed that we preferred a clover-sod. We only wished to say that while barley would not succeed on a clover sod, plowed up fresh, spring wheat would—intimating at the same time that it succeeded better on land plowed the previous fall.

(*b.*) The so-called *Golden Drop* is a comparatively new variety of spring wheat, and, however much it may be esteemed by the few who are acquainted with it, it has not been sufficiently introduced to warrant us in saying it is a "popular" variety in Canada. On the other hand, as we stated, the *Fife* is a well known and popular kind.

(*c.*) We did not. We only said that the small quantity of such matter which a seed could absorb could have little influence on the future growth of the plant. We think so still.

(*d.*) We have not found it so in our experiments. We have repeatedly used Peruvian guano, and also sulphate of ammonia, with great advantage to the crop, and never could perceive that the potatoes so manured were any more diseased than those having no manure of any kind.

(*e.*) He did this. He has ascertained, from twenty years' actual experimenting on wheat, what is the manurial value of certain ingredients that enter into the composition of plants. He has also ascertained what proportion of the food is retained in the bodies of animals, and what is voided in the excrements. Knowing the composition of the food, then, he is able to tell what will be the composition of the manure made from it; and consequently its manurial value. Our correspondent will find an article on another page, in which this subject is more fully, though briefly, discussed. It is too plain to need much discussion. Allowing that an ox eating 200 lbs. of turnips per day produces a large quantity of manure, does our correspondent attach any great value to the 175 or 180 lbs. of water which the turnips contain, and which goes to increase the weight of the manure? The manure made from 30 lbs. of oil-cake would certainly be worth more than that from 200 lbs. of turnips. There can be no doubt on this point. EDS.

IS THE KEEPING OF POULTRY PROFITABLE?

This question has been asked time and again. We answer, Yes. It has been shown in our agricultural papers, that on a small scale, from ten to a hundred hens may be made to pay a profit from thirty five cents to one dollar per head for each hen. But poultry-keeping, in one point of view, is not unlike some other occupations; therefore, to make it pay, it is of the first importance that a person should start correctly. When a man engages in a mercantile or manufacturing business, he makes, or should make, himself master in a measure of his business. So with poultry-keeping. The first step, then, toward rendering it a paying business, is a knowledge of the management, and a good selection of fowls. A proper mode of treatment is absolutely necessary to success; and it will not be found advantageous to engage in the business extensively under any other method than that we have mentioned.

Looking at the chicken merely as a machine for the conversion of cheap materials into a costly article of animal food, the point to be considered by those who have this object in view, and would be guided by motives of economy in their selection, is not which machine will consume *least* of the raw material, but which will manufacture the article *most* expeditiously, and give the quickest return of serviceable food; and here we think it will not be questioned that the Brahma fowls possess this property in an eminent degree.

Mr. Post, a neighbor, keeps a small flock of Brahma fowls, and has been pre-eminently successful in rearing them; but then he understands the business, and attends to it morning, noon and night —showing large returns, and amply remunerating the owner for the labor and all expenses incurred in keeping them. The statements which follow are doubtless correct and truthful representations, and are accounted for by the fact that all the feed was purchased, and that particular attention was given them. They were well supplied with animal as well as other food, in sufficient quantity, and were clean and free from vermin. By his care and management, he made them pay a clear profit, according to his statement, of over two dollars per hen. The time spent in the care of them was more of recreation than labor.

Here is his statement: "I commenced with 30 hens, which produced within the year, commencing on Christmas day, 1858, and ending on the 24th of December, 1859, 5,223 eggs. Set 21 hens and raised 210 chickens, which were disposed of as poultry at 50 cents each, reserving 20 pullets for breeding stock. Sold 18 barrels of manure for $18. Wintered 50 hens and 3 cocks, which comprises my present stock. Paid for grain and other food, $95."

RECAPITULATION.

Sold Eggs, averaging 15 cents per dozen	$90 00
" Chickens as poultry	62 50
" 18 barrels Manure	18 00
	$170 50
Paid for Feed	95 00
Net profit	$75 50

No account has been set down for the 20 pullets added to the breeding stock, which, valued at one dollar each, would swell the amount to $95 — a pretty fair profit for an investment of $30 in fowls.

Mr. Post thinks it is no more expense to keep the large quiet Brahma fowls than the common hens, while they are twice or three times as large, and better winter layers, better mothers, more docile, very careful of their young, and their flesh (we differ with him on this point,) fine and good flavored. He considers them in every respect better and more profitable than any other breed. The early hatched pullets commenced laying in September and October, and continued through the winter, furnishing eggs at that season when fresh eggs are scarce and command the highest price.

These fowls were confined to a small yard in winter, with an occasional run on the street in fair weather; and when seen at a distance reminds me of a small flock of sheep — being large and of a light color.

By the foregoing, it will be seen how to make the rearing of poultry profitable; and we do not know how to do it in a more satisfactory manner than by recording the experience of others. A very important step, however, toward making poultry-keeping profitable, it will be noticed, is to provide comfortable quarters for them in cold and stormy weather. Their house should be proof against frost.

We have omitted to mention that Mr. Post fed his fowls daily a small allowance of clover hay in winter, of which they seemed very fond.

Poʻkeepsie, May, 1860. C. N. BEMENT

HOW TO GET RID OF CHICKEN-LICE, AND TO KEEP HENS FREE FROM THEM.

Eds. Genesee Farmer: — Two years ago my chickens were infested with vermin, and my hen-house (which is also my wood and coal-house,) so overrun with the lice that no one could go into it without being covered with them. They were a great pest. To get rid of them I sifted air-slaked lime over the roosts, floor, wood, coal, and everything in the house, but to no purpose.

Just then, I saw the statement of a woman in one of my agricultural periodicals, saying that she did not know that sassafras roosts would prevent chickens from having lice, but she did know that when she had such roosts her chickens were never troubled with vermin.

Upon this hint I acted. I got some sassafras poles for roosts, and scattered the bark of sassafras roots among the nests. The result was that the lice soon disappeared.

My neighbor S. was in the same predicament with his hens and hen-house three weeks ago—the nest of one sitting-hen being so full of lice that she deserted her eggs. I informed him how I had got rid of them, and he immediately procured sassafras poles for roosts, and scattered sassafras bark about the hen-house and in the nests, with the same result that followed my experiment. His hens are now free from lice.

To try the effect of sassafras upon the lice, he dropped some of them upon pieces of the bark; the consequence was, that almost instantly upon touching it they died. He also dropped pieces of the bark among the deserted eggs, which were covered with lice, and noticed that when a piece fell among them, there was an immediate scampering to get away from it. From these experiments, I infer that sassafras is fatal to chicken-lice.

Washington City. N. SARGENT.

WILL IT PAY TO MAKE PORK?

Eds. Genesee Farmer:—Since the wheat crop has become so blighted and uncertain in Western New York, a change of farming has of necessity taken place. All kinds of stock have increased, and fields of coarser grains have multiplied in proportion; so that corn has become the leading crop—which, if well cultivated and judiciously fed (not sold,) on the farms that produce it, the soil will not deteriorate, nor debts increase, as many have conjectured.

The corn crop, where it can be successfully grown, is the farmer's regulator and balance-wheel. It will make less debts and more money in the pocket; less bankruptcy and more rich farms; less lousy cattle and more good beef; less cords of sheep under the fence and more good mutton in the market; less pulled wool and more to shear; less poor pork and more that will pay, than any other crop—wheat not excepted.

Then, with the conclusion to feed our grain rather than to sell it—what shall we feed it to, cattle, sheep, or hogs?

Pork-growing is becoming an extensive business in this section. It is one of the greatest channels for turning our surplus slops and coarser grains into money.

Then the question arises—and it is of no secondary importance—will it pay to make pork?

From the amount raised, it would seem that the question was practically answered in the affirmative; yet a large class complain that it is not a paying business—at any rate, more than what will eat the house slops, rotten apples, small potatoes, soft corn, and gleán the harvest fields, but not to feed anything saleable.

Men differ on this as much as their pork differs when brought to market—the poorer the pork the more the owner complains of his profits, or rather his losses; and the better the pork, the more satisfied the owner is, generally.

There can be no profit in raising a poor breed of hogs, that have no fattening qualities; nor even a good quality, with no conveniences nor proper care. A good hog can not be fatted, to any profit, in mud or filth, nor when he suffers from cold. It is no boy's business to understand the wants of hogs—to change their feed, and keep them healthy and growing.

The comforts of a hog should be consulted as much as any other animal, in order to receive the most profit from the least outlay. They should have a warm, dry nest, and clean pen. A hog that will not keep clean when well cared for is not worth fatting. The best fatting hogs keep the cleanest. They are remarkably neat—more so than most animals in their pen.

There is no way to test the profit or loss of making pork but by actual experiment—counting the whole outlay compared with the income; or by counting the cost for any given time, and the income.

I have fatted three litters of pigs, 25 in number, dressing 7,772 lbs.; averaging 311 lbs. each, at 9 months and 7 days old. They were from a sow—Leicestershire and Byfield crossed—and a full-blooded Suffolk boar, being very perfect in form, quiet, clean and hearty.

I dressed a litter of eight, February, 1859, averaging 252 lbs. at 7 months and 7 days old; sold for $7.75 per hundred. Dressed two litters, 17 in all, last February; 8 were 7 months and 11 days old, and 9 one year and 21 days old. The heaviest weighed 490 lbs., 474, 465, 454, 435, 413, etc. The three litters sold for $615, with the lard—280 lbs. The 9 gained 40 lbs. each in September, 47 in October, 53 in November—on soft corn and apples, mostly. Estimating the 17 at 5 cents a lb., live weight, December 1st, which was the highest market price, I made $75 above the cost of feed till dressed—February 21st—and the manure. They were fed on meal, one-third barley and two-thirds corn, scalded. They had boiled potatoes for dinner. The profit put on the corn fed—140 bushels—would bring it to $1.25 per bushel, calling other things fed at full value. The large hogs lost 14 per cent. in dressing. They had 9 lbs. of blood each.

My profits were as much if not more before December 1st than after, on the 17.

J. W. Brown, a neighbor of mine, who has had considerable experience in making pork, considers his grain worth from 20 to 25 per cent. more put into pork than to be sold, when the pork bears a fair price in proportion to grain.

He has just made an experiment in fatting pigs. He had a litter of ten pigs—a cross of Suffolk and Byfield—which dressed 290 lbs. each at 10 months old, and sold for $7.50 per hundred. He kept accurate account of all they ate from the start, and their first cost. He fed peas, ground with other grain, about half and half. The pea-meal cost 75 cents per 60 lbs., and other grain in proportion.

He made $50 and the manure above all cost, for the pleasure of feeding ten beautiful, white, clean shoats ten months.

These figures are not made thinking these pigs are better than many others, but to show that pork-raising can be made profitable, even on grain; and more so where there is a dairy connected with the corn-field.

Will it pay better to grow and fatten beef or sheep, or shall we sell our grain? These are questions of vital importance to our corn-growing farmers, and should be practically answered—not guessed at.

B. C. SIMONDS.

Genesee Co., N. Y.

A PROFITABLE DAIRY.

Eds. Genesee Farmer:—I send you the statement of a small dairy, that took the first premium in the class of Small Dairies, at the County Society's Annual Meeting—Edward Hoyt's dairy.

This dairy consists of six native cows, of the following ages: two 7 years old, one 6, one 5, and two 3 years old—calved from the 10th to the 26th of March, inclusive.

Amount of Butter made	1,220 lbs.		
" " sold	1,085 "	$220 61	
Butter used in family	145 "	30 45	
Pork made from milk		30 50	
Calves and Colt, raised by hand		18 50	
One Veal		5 50	
Three Calf-skins		2 40	
Milk used in the family		10 50	
			$328 46
Deduct expenses, freight, corn, etc.			20 26
Net income from all sources			$308 20

After deducting one-quarter each for two 2-year old heifers, the net profit per cow—5½ cows—is $56.04.

A SUBSCRIBER.

Walton, Delaware Co., N. Y.

STOCK AT THE FAIR OF THE ROYAL AGRICULTURAL SOCIETY.

(*Continued from page* 183.)

The Lincoln is the largest breed of sheep known. In the Report of the Chester meeting the writer said: "I have known 14 months' old lamb-hogs slaughtered at Lincoln April Fair, 30 together, averaging 35 lbs. per quarter, and have known 100 together clip 14 lbs. each of washed wool."

The Cotswolds.—"The general characteristics of the best Cotswolds are—their bold and commanding appearance; their finely-arched neck, well run into the shoulders, giving them an ease of carriage, when walking, which is peculiarly their own. They have broad, straight backs, with arched ribs and length of quarter, carrying an enormous weight of carcase upon clean yet open legs. As a class, they possess good legs of mutton. Their shoulders are rather open, but in line with the back, thus giving them a good appearance in the sheep-pen; the chest is broad and deep. There is a slight difference of opinion as to the exact sort of wool they should produce. A fashion of late has sprung up in favor of the open curly coat, while the older breeders adhere to the thick-set flaky coat. The latter class of wool affords the best protection against the vicissitudes of storms upon the open hill lands these sheep have to occupy. Be this as it may, they are fully agreed as to the animal carrying a 'fore-top' on his forehead, and of no small dimensions, as witnessed at some of the Society's meetings. These sheep have become popular from the fact of their hardiness being combined with flesh and wool producing properties. They are sought after for exportation to the colonies, and for crossing the dark-faced short-wools at home. The Oxfordshire down was originated by a cross between the Cotswold ram and Hampshire down ewe."

Pigs.—"The hog in British farming is in general viewed as a subordinate species of live stock, and valuable chiefly as consuming what would otherwise be lost. But there are farmers who keep large herds to advantage. To the miller, brewer, distiller and dairymen, they are an object of some importance and return. For the offal which they consume, they produce a greater weight of meat than could be attained from cattle. The prolific nature of this animal, however, rendering it easy to increase the supply above the demand, the price of pork varies more than that of any other sort of meat. Our native hog has been remodeled by the introduction of the small Chinese and Neapolitan pigs; the Chinese white pig giving the start to the small white races, and the Neapolitan to the small black breeds. Berkshire has long been famous for its breeds of the middle-sized black and white pigs; Essex for its black pigs; Suffolk for its white pigs; and the north of England for its large white bacon hogs: hence, it has been the object of the Society to encourage two descriptions of pigs, the one (small breed) more particularly for the production of *pork*, the other (large breed) for that of *bacon*. But, with such an undefined line between them, it is truly difficult to decide where the size of the small breed ends and that of the large breed begins. In thus classing the pigs many a useful animal is placed in the intermediate space. Take, for instance, the Berkshire pig, about the most serviceable and useful swine we have—a pig of ancient origin, and brought into notice by the Society's meetings. Thus, while the dairyman prides himself on his symmetrical blacks or whites for porkers, and the north countryman extols his large hogs for bacon, the Berkshire pig may be truly designated the 'general purpose pig.' Being very hardy, they are well adapted for the strawyard; they are also good graziers during the summer months, and possess more lean meat than the smaller breeds."

The preceding difficulty of classification has been subsequently entertained by the Council, and resulted in a modification of these classes, whereby each class or breed will contest against his fellow breed or similar description of pig. The four classes for the year 1860 run thus:—1. Large breeds; 2. Small white; 3. Small black; 4. Pigs of any color not eligible for the other classes.

The Small Breeds.—"These, as usual, were 'the pets' of the show; there they lay, like a number of balls, perfect models of fat, but of their lean meat we must say but little; scarcely a pig among them could walk to his trough. Among the boars, we had a choice white specimen from the Prince Consort's stock—an animal well worthy of his first prize distinction."

Cattle best adapted for Dairy purposes.—"A local prize has for its object local good, hence the condition 'best adapted for dairy purposes.' This distinction is well meant, but it proved to be a 'distinction without a difference.' In these classes were animals of every breed and pedigree, from the best Short-horns, Herefords, Ayrshires, etc., down to the humble yet respectable real dairy cow. There were collectively 77 animals entered in the four classes, viz: 11 bulls, 17 pairs of cows, 8 pairs of heifers in-milk or in-calf, and 8 pairs of yearling heifers. The bulls consisted of 10 Short-horns and one Hereford. Mr. Ambler, of Watkinson Hall, near Halifax, exhibited a very beautiful 15 months' old young bull, 'Royal Turk,' by 'Heart of Oak' (14,683), in this class, and easily carried away the prize. This animal was decidedly one of the best Short-horns in the yard—a remark which is substantially supported by the fact of his having been sold in the yard to Mr. Langston for 400*l*. He is a beautiful light roan, full of flesh, with first-rate form and quality. This bull will be seen again at future exhibitions, when we doubt not but that he will prove himself a distinguished competitor."

"*Milking Cows.*—This was an excellent lot of animals, but it more properly represented the 'established breeds' than that for 'dairy purposes,' as the following awards and names of exhibititors will testify. Mr. Langston, 1st; Colonel Pennant, 2d; E. Lythall (breeder of the first prize aged bull), 3d; Henry Ambler and Joshua Price, highly commended; E. Bowly and H. Rawlings, commended. The first prize cow was a first-rate Short-horn, suitable for any class, as were nearly all the animals in this 'Milking Class.' It was thought by the Committee that this class would have proved a leading feature in the show, by pointing out the fine features and essentials of a dairy cow, best

adapted to milking purposes. As a specimen of what a dairy cow ought to be, we at once point to a cow (No. 951) exhibited by Mr. STEAD, of Owlerton, near Sheffield. This cow was apparently a cross between the Yorkshire dairy cow and Durham bull."

"*Heifers in Calf or Milk.*—The first prize was awarded to two roan Durham heifers, which represented every thing good but milking qualities."

"*Yearling Heifers.*—There were again in this class some first-rate specimens of the 'established' Short-horn breed: so much so, that the best pair of heifers, exhibited by Mr. AMBLER, of Watkinson Hall, were selected by some Australian breeders for exportation, and were sold for 250*l.*" "Mr. DOUGLAS, of Athelstaneford, exhibited a pair of red Ayrshire heifers, which, for uniformity of shape and promise of milking qualities, were highly approved by the dairy farmers. The first cross between the Alderney and Short-horn bull is found to be especially good for dairy purposes, and is worthy of trial. The Alderney and Ayrshire also mix well for these purposes. The breeding of cows for 'dairy purposes' is a subject that requires considerable forethought and practice. Dairy produce is now at its top figure; and as a commercial eye is now being turned in that direction, the question need no longer be asked, Does a dairy pay? but rather, 'What is a dairy cow?'

GREAT FECUNDITY OF PIGS.

MORTON'S *Encyclopedia of Agriculture* says:

"It is certain that none of our domesticated animals will afford such a large amount of food for human sustenance as the pig, in proportion to the readiness and expense with which it is raised, and the time necessary for raising it. The numbers now bred and fed are exceedingly great, and are yearly increasing. There is no class of animals equally prolific that are of any great value to man. Let it be supposed that a sow has her first litter when she is twelve months old; that she has a litter every six months; that she has an average of six pigs every litter; that she is kept in a breeding state till three years old, and then fattened off to average 4 cwt. when killed, and all the pigs to be fattened off by the time they are twelve months old, and to average 2 cwt. when killed; and it is a mere matter of calculation to show that there would be, at the end of six years, of breeding pigs—

612	2½ years old.
1,386	2 years old.
3,159	1½ years old.
7,155	1 year old.
16,281	½ year old.
36,936	sucking pigs.
65,529	
58,217	

118,746 in all, besides the sale of 27,508 cwt. of bacon; and besides 16,281 hogs ½ year old, and 36,936 sucking pigs.

"This is of course a ludicrously extravagant calculation, but it shows how very rapidly pigs can be made, under careful management, to propagate their species; they may not come up to the estimate above, but they may approach it."

A FEW years ago, several varieties of oats were imported into Canada from Great Britain. They retained their superiority one or two years, but rapidly degenerated afterward.

WHEAT OF THE SOUTH.

EDS. GENESEE FARMER:—The impression made by reading the following, from HERODOTUS, many years ago, has never been eradicated from the mind; and we now maintain it is the only reliable mode of acquiring accurate and correct information. He says: "The Egyptians, whenever any unusual circumstance occurred, committed the particulars to writing, and marked the results which followed it: if they afterward observed any similar indication, they considered that the results would be similar also."

This principle has its foundation in the idea that the laws of the Creator are without exceptions. This being true, we rely upon similar observations and investigations to prove the correctness of the following propositions:

First—That all plants are thermometers, with their zero points or vegetation degrees, below which the vital principle is congealed, and above the same is vegetable life and activity. This degree is different in each different plant, each having its own degree of vegetation or point of departure.

Second—Plants, after vegetation has commenced, require also a certain amount or *quantum* of *heat*, not any certain duration or continuation thereof. It is the amount, not the duration, that is essential to mature plants. "It is plain that a great heat during a short period must produce the same effect on plants with a less degree of heat during a longer term." Nor will any one doubt, but there is a *greater* amount of heat in a given number of days multiplied by a mean Southern temperature, than there is in the same number of days multiplied by a mean Northern temperature. If we are right—and we are supported by the very highest authority—then two propositions or results must follow: 1st, the *degree* of vegetation is reached earlier in the season South than it would be at the North. 2d, the amount of heat is realized in fewer days South than at the North, which is an additional amount of time gained.

So when the effect of both is appreciated, it will be found that Northern trees, tulips, roses, and *wheat*, will vegetate before, bloom sooner, and *ripen* earlier, South, than they would have done at the North. We know that Northern autumn and winter apples become summer and fall fruit further South.

If these facts prove anything, it is, that if we want *wheat* that will *ripen earlier*, it should come from the *North*, because it will *commence growing sooner*, and *ripen* in *fewer days*. The reverse of all this would follow from planting *Southern wheat*.

N. S. N.

CHESTER WHITE HOGS.—In the June No. of your most excellent *Genesee Farmer*, I notice an inquiry in relation to the Chester White Hogs. I reply: 1st—the thorough bred are peculiar for being always white; 2d—they are peculiar for being very quiet and peaceable; and 3d—they are peculiar for being in good condition for slaughtering at any time after being six weeks old. They are short-legged, broad on the back, and have short heads and noses; very quiet, easily fattened at any age, and have often weighed, at from 16 to 18 months old, over 600 lbs.—BELA DUNBAR, *North Chili, June 6th*, 1860.

RENOVATING PASTURES.

The way to make more and better herbage grow in our pastures, is something that most farmers are anxious to find out. We have hundreds of acres of land called pasturage, on which no grazing animals, not even goats, can obtain such a support as will enable them to yield their owners a profit. We do not think it an object to attempt the keeping of stock on the poorest of this land, under any circumstances. It will not *pay* to improve it. Some persons seem to think that sheep may be kept to advantage on the hungry sands of Cape Cod. We think such tracts could more profitably be devoted to the growth of pine wood.

But we must have some pasturage, and there are lands which may be devoted to this purpose advantageously. We can not give such an exact description as will indicate, in advance, in all cases, what soils will pay for improvement in reference to this object. In many cases, lands which formerly produced very good grass, now produce a much less quantity of poorer quality. The causes of this decline are various, and perhaps all of them are not understood. Some of the most prominent are these:

1. There is more stagnant water in the soil than formerly. When the land was first cleared from the forest, the roots of trees tended to conduct the water into the earth; and after the roots decayed, the spaces they had occupied in the soil formed channels for the descent of water. This would continue for some time, till by gradual consolidation from the tread of animals and other causes, the soil and subsoil become more impervious.

2. In some instances, from the slow descent of water into the earth, or its being retained near the surface, mineral substances are deposited which are injurious to vegetation, and at the same time increase the obstruction to the discharge of water. The "hard-pan," as it is called in some parts of this country, and "moor-band" in England, will be recognized as producing this effect. The earth becomes cemented by a precipitation of iron, with, in some instances, other substances.

3. In consequence of the check to the discharge of water from the soil, the better kinds of herbage are liable to be winter-killed—they are "hove out," as the farmers say, by the frost—the expansion produced by the freezing of the water in the soil, breaking the roots, which, being exposed on the top of the ground, die.

4. In consequence of the decline of grasses, wild plants, shrubs and trees have sprung up, which have still further checked the growth of grass.

5. It is probable that the soil has become actually exhausted, in some instances, of some of the elements essential for grass. The most important of these are probably alkalies and phosphates.

Such are some of the causes of the deterioration of pastures. We may now consider some of the remedies. The first is drainage. Of course it is only a particular class of soils that would be benefited by drainage; but wherever the conditions mentioned under the first and second of the above heads, are found, this is the proper remedy. The operation will be attended with considerable expense in some instances, particularly on hard, stony land, like some of our New England hills, and actual trial only can show whether the value of the improvement will overbalance the cost. But trials may be made without much expense that will afford a guide. Make a few drains, of tiles or stones, not less than two and a half feet deep, in such places as seem to need them most, and when they have been in operation a year or two, their effect will be sufficiently obvious. If the wild vegetation declines, and more nutritious plants increase and thrive, drainage is the needful thing. Still the full effects can not be told till a sufficient time has elapsed to show what changes will take place. Carrying away the water will let the air into the soil, and this will decompose the substances which to the more valuable kinds of plants are unwholsome —as the compounds of iron above-mentioned, acids, etc. But in some instances it may be necessary to sow the seeds of the grasses it is wished to introduce, and we must wait till the new crop is fairly established before we can know fully how it will succeed.

Bushes may be destroyed by mowing; in many cases it is the only way they can be destroyed. Much pasture land is so stony that it can not be plowed; and if it could be, it is not likely that it would be thus benefited for grass. It is the testimony of many farmers that our hill pastures are better without plowing; they were generally brought into grass in the first instance without plowing, and it has been found that when the first sward has been broken and the surface reversed in position, so good and permanent a sward has seldom been formed again. Much of "natural mowing," so called, in the hilly parts of this State, Connecticut, etc., was never plowed, and it is considered better for hay than similar land which has been plowed.

It is admitted that some shrubs are very tenacious of life; but they can not long bear cutting close to the ground every year, in August, whether it is done in the "old" or "new" of the moon. Cutting the bushes strengthens the growth of grass, and this in turn hastens the death of the bushes. In some instances it is desirable to aid the grass by some top-dressing. Plaster has been used in this way with great advantage on some soils, and as we have before stated, it is the cheapest application that could be made. On soils to which it is adapted, it produces so firm a turf that nothing else will grow in it.

Sheep may be put on bushy pastures to advantage. If the bushes are cut every year, the sheep will crop the tender sprouts to such a degree that it greatly weakens their vitality; while at the same time the grazing increases the growth of the grass and white clover, which, as before remarked, tend to exterminate the bushes. It is a somewhat singular fact, but one well established, that land grazed by sheep rather improves in fertility. There are thousands of acres of land in Wales and Scotland, on which sheep have been kept for thousands of years (for aught that is known to the contrary), without the application of any other manure than that dropped by the animals, and yet the growth of grass is undiminished. There are instances in our own country, of sheep being kept a long time on land, with no diminution in the growth of grass.

Various experiments show that sheep may be made an important means of improving pastures. We have several times alluded to the experiments

of R. S. Fay, Esq., at Lynn. In a late conversation with that gentlemen, he mentioned a plan which he had in view for improving a rough pasture, lying at a distance from his homestead. He said he intended to put on so many sheep that they would eat everything that was eatable on the land, and should give them oil-cake enough to fatten them. Thus he would have the wild vegetation killed and the land made rich by the oil-cake manure, which would insure a good growth of the right kind of herbage. The idea strikes us favorably; we can not see why something like this may not be done extensively. It might be well to confine the sheep at night by hurdles on the spots which most need manure—shifting from place to place as the requisite dressing had been applied.

It would be well, also, to make some experiments in the application of substances as top-dressings. We have already spoken of plaster. Wood-ashes, leached and unleached, may be tried, but it should be remembered that they will not do much good on wet land. Superphosphate of lime may prove to be a cheap fertilizer on some pastures. Any of these things may be sown at first in narrow breadths across the fields. A dollar's worth used in this way will afford a pretty fair indication of the profit or loss.—*Boston Cultivator.*

HAY-MAKING.

As the season for making hay is approaching, we will give a few words of caution in advance. *Don't dry your hay too much.* Hay may be dried till it is as worthless as straw. As a good coffee-maker would say, "don't burn your coffee, but brown it;" so we say, "don't dry your hay, but cure it." Our good old mothers, who relied upon herb tea, instead of "'potecary medicine," gathered their herbs when in blossom, and *cured them in the shade.* This is the philosophy of making good hay. Cut in the blossom, and cure in the shade. The sugar of the plant, when it is in bloom, is in the stalk ready to form the seeds. If the plant is cut earlier, the sugar is not there; if later, the sugar has become converted to woody matter.

Hay should be well wilted in the sun, but cured in the cock. Better to be a little too green, than too dry. If, on putting it into the barn, there is danger of "heating in the mow," put on some salt. Cattle will like it none the less.

Heat, light, and dry winds, will soon take the starch and sugar, which constitute the goodness of hay, out of it; and, with the addition of a shower, render it almost worthless. Grass cured with the least exposure to the drying winds and searching sunshine, is more nutritious than if longer exposed, however good the weather may be. If ever cured, it contains more woody fibre, and less nutritive matter.

The true art of hay-making, then, consists in cutting the grass when the starch and sugar are most fully developed, and before they are converted into seed and woody fibre; and curing it up to the point when it will answer to put in the barn *without heating*, and no more.—*Ohio Cultivator.*

We do not exactly see how the "heat, light, and dry winds" can take the starch and sugar out of the hay; but the above remarks are, on the whole, correct and valuable. EDS.

WHAT I HAVE SEEN.

I have seen, since 1841, land selling in the vicinity of Washington City, D. C., for from $8 to $12 dollars per acre, which cannot now be purchased for less than from forty to one hundred dollars per acre.

I have seen tens of thousands of acres of land in the vicinity, say within fifteen miles, of said city, which, since the period mentioned, could not be coaxed or forced, without the use of manure, or other *unusual* means, to grow ten bushels of corn to the acre, and not a spear of clover or timothy, made to produce from year to year, as much corn, rye, oats, pototoes, clover and timothy to the acre as is the ordinary product of lands in the western part of New York.

I have seen northern men coming here, purchasing these worn-out lands for a mere song, and by pursuing a system of culture altogether unknown by the farmers around them before they came, resuscitate their lands, and make fine, productive farms out of what seemed to be irreclaimable, barren waste.

I have seen a northern farmer put a *team*—not a poor rat of a horse—to a plow, go into an "old field," which had not, for a period of time whereof the memory of man runneth not to the contrary, produced above ten, perhaps not five, bushels of corn to the acre, turn up the soil ten or twelve inches deep—the virgin soil, because never before disturbed by the plow—and without the aid of a spoonful of manure, or guano, or any other fertilizer, gather from twenty-five to thirty bushels of corn to the acre; persisting in thus plowing his land, though assured by those who ought to know, because they had lived all their lives upon and cultivated the same kind of soil—that they would spoil their land by turning under, so deeply, the little good soil there was on it.

I have seen the time when the manure thrown out of livery and other stables in that city, was considered of so little worth as to be given to any one who would haul it away; and I have seen it, as it now is, selling for from sixty-two cents to a dollar a load, and eagerly sought for at that, to be hauled from one to six or seven miles over execrably bad roads—there being in this vicinity very few pieces of good road over a mile or two in length.

I have seen "old residenters" hereabouts, trying to cultivate, as they call it, some two or three, perhaps five, hundred acres; and I have seen new comers sitting down along side of them, cultivating and obtaining more from fifty acres than could be got from the two or three hundred; while each year the soil of the small farm was improved and rendered more productive, and that of the large one was rendered less so.

I have seen many of these "old residenters" occupying from three to eight hundred acres, living a distance of from half a mile to a mile and a half from any public road, surrounded by hogs, dogs and negroes, but not a sheep upon the place. I have seen neighbors living within half a mile of each other, who could not go to each other's dwellings without going, by the road, from three to five miles. I have seen men living within a mile of the mill, yet could not take a bushel of corn to it to get ground without going a distance of four miles.

And I have seen these same "old residenters" strenuously oppose the opening of roads so as to enable farmers thus situated to go to mill, or to each other's houses, without going so far around. Why? Because such roads might pass through some part of their three, five, or eight hundred acres, of land worn out half a century or a century ago by their ancestors, by raising tobacco, without ever returning anything to the soil.

I have seen roads — or what are called by that name here — running over the highest hills and through the deepest vallies, twisting and turning, apparently to seek the very worst places and to avoid the best — going zig-zag, and round about, up and down, over sand and through deep mire — where they might be made upon much dryer and harder land, with easy grades, and shortened at least one mile in five; and I have seen farmers hauling manure from the city over these roads, having to use four horses to haul a load which might easily be hauled by two, and in less time, were the roads made in the proper manner and in the proper places.

"They order these things differently in Flanders," and I trust they will near the Capitol of the United States, one of these days, when the "old residenters" shall have passed away, and their large farms been divided and sub-divided among "their heirs and assigns." PEQUOD.

Bladensburg, Va.

SHALL AGRICULTURE BE TAUGHT IN OUR COMMON SCHOOLS?

EDS. GENESEE FARMER:—In my communication (May number *Genesee Farmer*,) upon the above topic, I partly promised to trouble you and your readers with a few more thoughts upon the same subject.

Although no arbitrary rule can be laid down in every individual case for the commencement of an education, yet it is conceded by all that it is better to begin when the mind is, like the soft clay, susceptible of a lasting impression. And it is a fact, that early impressions are the most lasting in our lives. Whatever, then, we wish to make the most durable, we should labor to give the earliest imprint upon the mind. It is vain to expect that every thing to be learned can be done at once; but "little by little" is a good motto to adopt in all pursuits.

If, then, it is desirable to give the rising generation an agricultural education, when is there a better time than to begin with the youthful and expanding mind?

This being a fact so self-evident, we will not stop to offer any other proof. Having, then, come to the conclusion that an agricultural education should begin early in life, here we again ask the question, Shall Agriculture be taught in our common schools? I answer that it can, and I believe *will be*, before another quarter of a century shall have passed — and may we not hope before another census shall be taken?

I will now pass to give you some reasons why Agriculture should be taught in our common schools. What is more common than the question which is continually coming from all parts of our country, "Why are so many of our young men, sons of farmers, turning their backs upon farming, and their faces toward other and more uncertain pursuits?"

This mystery, Messrs. Editors, is, in my opinion, contained in a nut-shell; and we will endeavor to *crack* it and bring it to the light.

Children, when first sent to school, are expected to learn their A B C's; afterward, to spell words of one, two, three and more syllables; next, to learn to read, write, cypher, study geography, grammar, astronomy, and perhaps natural philosophy, and a few other branches of an English education, and by this time he is ready to go away to some academy or high school, where he becomes associated with a class of lads from the city and large towns, who look upon labor as degrading, and upon him as their inferior! If he is ambitious to maintain his dignity, he believes it to be necessary to conform to the wishes, habits and feelings of his classmates; and long before he has finished his collegiate course of studies, he is most thoroughly finished for anything pertaining to farming or labor. There may be exceptions, but this is the rule.

Now I am not going to say that farmers' sons and daughters should not be educated, or educated abroad—far, very far from it. But how, and when, and where to do it, I shall reserve for another article. W.

Trenton Falls, N. Y.

LETTER FROM UTAH TERRITORY.

EDS. GENESEE FARMER:—I received three numbers of the *Genesee Farmer*, and have read with much interest the contents. I like your paper much, as the articles are short and much to the point. I shall willingly recommend it as a cheap and useful paper.

In this cold, barren climate, there is much need of information on the cultivation of the soil—especially as most of the settlers here are strangers to farming and gardening operations.

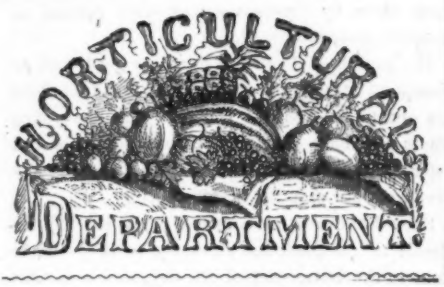
The winter here has been unusually severe—the thermometer has, I believe, fallen as low as 22° below zero. Most of the peach trees are killed, and those which are alive are much injured; we shall have no peaches this season. The apricot blossoms are also killed and the trees much injured, as are the apple, pear and plum. Our native currants, and a few plums from the seed of hardy varieties, are the only trees that have escaped uninjured by the winter.

On Saturday, we had a heavy fall of snow ten or twelve inches deep, and on Sunday morning we had a hard frost. Icicles were hanging from the eaves twelve to fifteen inches in length. It was quite a novel sight, to see the green trees and vegetables above the snow, while the sun was shining over the valley.

This morning, Monday, we have had a sharp frost, and vegetation looks but sadly. The winter has been very severe on the cattle on the range. I was informed this morning, by a person who has just come in from Ruby Valley, in the South, that the snow fell there from two to three feet deep a few days since, and that of the herd of Major WARDEL & Co., which contained 3,000 head, only about 200 are alive.

Wheat looks well in the Valley, and we shall most likely have a favorable season for grain; but the fruit crop will be very meagre. E. SAYERS.

Great Salt Lake, Utah Territory, May 14, 1860.



STRAWBERRIES.

Who, as at this season of the year he enjoys his dish of strawberries and cream, or looks with admiring eyes on his neighbor's glowing crop, does not again resolve to make a strawberry plantation? And again the question, "What to plant," recurs.

Much attention is now being paid to the improvement of this delicious fruit, and new seedlings are being sent out from different parts of the country every year, many of which fall into disuse and obscurity as suddenly as they are brought to notice. Several years of culture are required before a correct opinion can be formed of the merits of any fruit; and although every new fruit giving promise of extraordinary value should be sought after to be tested, yet the planter can not use too much discrimination nor care in obtaining the most reliable information in selecting standard varieties.

One of the oldest, most reliable and valuable early sorts is the *Large Early Scarlet*, extensively cultivated in all sections for an early crop, and as a staminate plant to use with the pistillate varieties; it is hardy, productive and good. In direct competition with this sort, within a few years the *Jenny Lind* has been gaining public favor. It originated at Cambridgeport, Mass., and has for the last three years received premiums at the exhibitions of the Mass. Horticultural Society, and also been the subject of special mention by the fruit committees, in whose opinion it is a great improvement on *Large Early Scarlet*, and fully equal to it as a fertilizer.

It is nearly double the size of the *Scarlet*, ripens at the same time, and produces more; and we can not hesitate to recommend it to our readers as the best early sort.

The engraving here representing this variety, is that of only a small sized specimen. The shape, as will be observed, is conical; the color is a rich, glossy crimson; the flesh is sufficiently firm to make it a valuable market variety, and at the same time abounds with a sprightly, rich, sub-acid juice.

Burr's New Pine is an old and justly high-prized sort. It is hardy, productive, and of a delicious flavor. As it is a pistillate variety, it requires to have some staminate sort planted with it.

Cushing is a sort that has long been grown about this city as a market fruit. It is a large, light colored berry, of excellent quality, and quite productive.

Hovey's Seedling is too well known to need description. It is gradually giving way to other varieties; but many of the best cultivators still regard it as the most valuable market berry.

Hooker—A very large, dark colored, handsome berry, of exquisitely fine flavor. It is a vigorous grower, hardy, productive, and an estimable variety, of the highest quality.

Scott's Seedling is a fruit of second-rate quality, but beautiful in form and appearance, and so very productive as to make it a highly profitable market sort.

Among all the endless varieties of strawberries in cultivation, the *Wilson's Albany* is a perfect marvel for its productiveness; there is nothing else that will at all compare with it in this respect. The

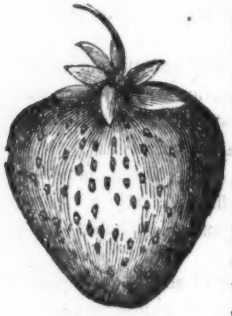
THE JENNY LIND STRAWBERRY

fruit is quite large, roundish, and sometimes irregularly shaped; of a dark red color; the flesh is firm, with a brisk acid juice. Its qualities altogether are such as render it probably the most profitable sort for market purposes.

Triomph de Gand is of Flemish origin, and has rapidly gained public esteem within the last three or four years; it is of the very largest size, usually of an irregular shape; the color is a beautiful crimson;

son; flavor sweet, rich and delicious; the vines are hardy, of vigorous growth, and quite productive.

Victoria (*Trollope's Victoria,*) is an English variety that proves to be quite productive in this country; the berries are very large, of a roundish, conical shape, and of a light crimson color; flesh tender, sweet and delicious. It is a very beautiful fruit.



BURR'S NEW PINE.

For a very late crop for garden and market purposes, we can recommend the *Crimson Cone.* It is a regular and abundant bearer, hardy and vigorous; the flavor is of a rich sprightly acid, and the flesh is sufficiently firm to allow its transportation to market. It is an old sort, and has stood high in public estimation many years.

The soil into which strawberries are transplanted should be dry, deeply spaded or plowed and reduced to a fine tilth, and thoroughly enriched with good rotten manure if it is in any way impoverished; and after planting it should be well cultivated. In this way only can a good and remunerative crop be produced.

In large plantations, the plants are set in rows three or four feet apart, leaving a space wide enough for a cultivator to pass through, and a foot from each other in the rows. In garden beds, they are planted about a foot apart each way; and if kept in this way, without allowing the runners to form plants and fill the intervening spaces, much larger and better fruit will be obtained than if the plants should cover the whole surface.

LARGE EARLY SCARLET.

Among the varieties of strawberries we have alluded to, three of them—*Burr's New Pine*, *Hovey's Seedling*, and *Crimson Cone*—are what are called Pistillate sorts, the flowers of which are wanting in stamens, and without some of the other staminate sorts planted near or among them, would produce only a few imperfect berries.

The selection of these pistillate sorts and planting them alone by themselves, has often resulted in complete disappointment.

The month of August is usually a good time to transplant strawberry vines; as at that time there are apt to be frequent showers, and the young plants also have time to become well established before winter sets in. Such plantations usually produce a fair crop the ensuing spring.

Should the weather continue dry when it is desirable to transplant the vines, the work should be done in the latter part of the day, and each plant receive a liberal watering; and the next morning, early, be covered with a large leaf or bit of paper, held down by a small stone. This covering may be kept on until the condition of the plants may appear to warrant its removal, and which may be done at evening, or on a cloudy day, so as not to expose the plants too suddenly to a burning sun. We have been thus minute on this point, as many fail in transplanting at this season for want of sufficient care.

On the approach of winter, cover the plants lightly with some coarse litter, and they will come out in the spring prepared for a vigorous growth.

EXTRACTS FROM CORRESPONDENCE.

BARK LOUSE.—A. G. H., of Waukesha, Wis., writes: "On page 95 of (March number) *Farmer*, you recommend, as the best remedy for bark louse, to 'scrub thoroughly with a stiff brush and soap-suds in June.' Very good as far as it goes, but quite impracticable in its application; for the lice are abundant on the smaller twigs and ends of branches, beyond the reach of a brush, except with injury to the foliage—besides requiring much time at a busy season. The tar and oil, which you would not advise, is, I assure you, quite safe, of easy application, and a sure remedy."

WOOD-PECKERS.—N. S., of Genesee Co., N. Y., says wood-peckers may be prevented from injuring trees by spreading grafting wax on the parts already wounded; they will seldom afterward attack them. If they can find no insects in the fissures of the bark they have made, they cease their depredations. He has often thus saved pear trees, and never knew them to be attacked after wax was applied.

CUCUMBER STRIPED BUG.—A correspondent in Ohio, J. CLAY COX, writes that he has discovered that if cucumbers are not hoed when young, but the weeds suffered to grow, the yellow or striped bugs will fly over the ground without perceiving that there are any cucumbers there for them to feast on.

CHARCOAL ON OLD ORCHARD LAND.—C. W., of Fairfax Co., Va., writes: "In a back number of the *Farmer* I noticed a statement that apples did not do well on the old lands in Connecticut. Charcoal will supply that which old land fails to furnish the trees with, while at the same time it acts as a total exterminator of the grub. They cannot work among it."

GRAFTING WAX.—J. P. Cosco, Wis., sends us the following recipe for making grafting wax that will not melt or crack: Take one pound tallow, two pounds beeswax, and four pounds rosin; melt together; pour into cold water, and when cold enough to handle pull it till white. Put on cold.

EXTRACTS FROM AN ESSAY ON "FRUIT CULTURE IN THE OHIO VALLEY."

BY W. D. GALLAGHER.

Awarded a Premium by the Kentucky State Ag. Society.

THE author treats his subject under several heads, the first of which is the

COMMERCIAL FEATURE.

"Will fruit growing in the Ohio Valley answer the economical test, and 'pay?'"

To prove the affirmative of this question, the scarcity and insufficient supply of fruits throughout all the West, North-West and South-West, is alluded to as showing the demand for such produce.

"Why is it that, with the genial climate, the appropriate soils, and the favorable topographical features, of the extensive region watered by the Ohio river and its tributaries, labor enough is not found engaged in horticultural pursuits to supply fruit equal to the demands of the labor engaged in other pursuits? Can it be that the extent of this demand is not understood? Not if people who live in the country and own farms read the papers, or attend market with their eyes and ears open. Can it be that young trees are not to be had at reasonable prices, or not at all? Until very recently, it is true, there were not nurseries enough in the West to furnish fruit trees equal in kinds and quality to the wants of the people; but for many years large eastern nurseries have had their agents in this part of the country every season, with descriptive catalogues in hand, not only giving our people an opportunity to buy, but fairly begging them to do so. Can it be because orchards, early established in this region, have proved to be unproductive in fruit, or unprofitable in money? The contrary, in reference to each point, is notoriously true. What, then, is the reason that we have such an insufficient supply of fruit, and that so much of what we do have is indifferently good or positively bad?

"Two answers, we suppose, may be given to this question, both of which are correct, and either of which is sufficient to account for the scarcity and inferiority complained of. The first is, that the great mass of the rural population of the West is composed of persons in very moderate circumstances pecuniarily, who require quick returns for their labor, and can therefore better afford to accept at once the small profits yielded by wheat, corn, tobacco, hemp, and other field crops, than to await the larger profits of orchards and fruit gardens, which can be realized only after years of labor, care, and patient waiting. The other is, that fruit culture, to be successful, requires knowledge of varieties of fruits, acquaintance with the differing habits of trees, skill in planting, cultivating, and training, and great care in gathering, keeping, and marketing.

"At the present period, however, the rural population of the West is in comparatively easy circumstances, and in its ranks numbers many persons well skilled in the minutiæ of horticultural pursuits. It would, therefore, seem that the scarcity of fruits which still prevails among us is without any sufficient or satisfactory cause; and hence we deem it the part of wisdom, and a matter of duty, to urge upon our agricultural friends, one and all, the systematic devotion of a reasonable portion of their time, labor and lands, to the careful cultivation of fruits."

"Examples of very great success in this business, in the United States, are by no means rare. Four or five years ago, a peach orchardist in Ohio was offered $18,000 for the fruit on twenty acres of peach trees, while it was yet growing, and more than a month before the period at which the earliest part of it would ripen. He declined the proposition, and realized about $20,000 from the same fruit by gathering and selling it to consumers himself. This, however, was a most extraordinary instance of a good combination of circumstances, viz: fine fruit, a ready market, and high prices. It is one of those happy accidents which occur only once in a very long while. And besides, four or five years of labor and care had preceded this crop, which was the first borne upon the trees.

"Some vineyards near Cincinnati have, in favorable seasons, produced nearly $1,000 per acre; but a much more common yield, one year with another, is about $250."

"In Washington County, Ohio, snug little fortunes have been made by raising one single kind of apple and shipping it South-West for the supply of New Orleans. Strawberry growers near Philadelphia have often pocketed $200 to $300 per acre for that delicious fruit. And a plantation of three acres in raspberries on the Hudson river is stated to have yielded as high as $1,500 in a single year.

"But it can not be necessary to multiply such examples. Nor, on the other hand, is it altogether safe to take examples like these as a guide, and base operations upon them. A good knowledge of the character and habits of trees and plants, as well as experience and skill in their treatment at the outset, and subsequent management, is necessary to the attainment of results such as we have enumerated. No tyro in Horticulture can do these things. Any ordinarily intelligent and observing cultivator, however, who would go diligently and economically to work—availing himself of all sources of information and aiming to keep fully up with the times—might reasonably count upon attaining *half* the sums we have mentioned; and the immense difference which even that would make in his yearly receipts compared with what his tobacco, and corn, and briar

patches yield him, it would not take him long to 'cypher out.'"

"For *good* fruits, Cincinnati, Louisville, St. Louis, and scores of smaller cities in this immediate latitude, always present ready markets, in which high prices are paid. And then there are scores of populous towns and cities on the great lakes north of us, easily accessible by railroads, which are always desirous of receiving early supplies of the delicious fruits of the Ohio Valley, and able and willing to pay high prices for them.

"So that every obstacle named, on being approached and looked in the face, vanishes like a shadow, and leaves on the mind no doubt as to the practicability of pursuing Horticulture, on an extensive scale, in the latitude in which we live.

"If, then, it is profitable to go largely into fruit culture in this region, and if a paying market is at hand or within convenient reach, the next question that arises refers to

THE KINDS OF FRUIT.

"Still, it may be assumed as a rule which will be found to have but few exceptions, that the *same varieties of fruits*, generally, will be found equally well adapted, or nearly so, to all that part of the Ohio Valley which lies within two East and West lines drawn through Lexington in Kentucky and Columbus in Ohio. This embraces a large region of rich, beautiful and healthy country, and is naturally, we have not a doubt, taken in all aspects of the case, *the best fruit district of the United States.*"

THE APPLE.

"Nearly every variety named in this list has been amply tested here, and may be relied upon as good —and as succeeding very well or tolerably well in most parts of the geographical belt described in a preceding division of this essay.

LIST OF APPLES ADAPTED TO THE OHIO VALLEY:

Summer.—American Summer Pearmain, Bevan's Favorite, Benoni, Black's Annet, Bohannon, Early Strawberry, Early Chandler, Early Pennock, Findley, Harvest (Yellow Harvest, Early Harvest), Keswick Codlin, Large Sweet Bough, Red Astrachan, Summer Queen, Summer Rose, White June (Juneating, &c.), Williams' Favorite.

Fall.—Cooper, Fall Pippin, Gravenstein, Jersey Sweet, Maiden's Blush, Pennsylvania Red Streak, Rambo, Smokehouse, Smith's Cider.

Winter.—American Golden Russet, Belleflower (Yellow), Belmont, Broadwell, Carthouse, Dominie, Dutch Mignonne, Fameuse (Snow Apple), Fort Miami, Jonathan, Lady Apple (Pomme d'Apie), Limber Twig, Michæl Henry Pippin, Milam, Newtown Spitzenberg, Ortley (White Belleflower), Philip's Sweeting, Pryor's Red, Rawles' Janet, Rhode Island Greening, Rome Beauty, Roxbury Russet, Vandervere, Willow Twig, Wine Apple, Yellow Newtown Pippin.

BRICKS ABOUT MELONS.—The *Prairie Farmer* gives the following: Place four bricks about melons flat-wise, and a piece of glass laid over them will hasten the vines and produce early fruit. As the vines grow, turn the bricks up edge-wise. It will also protect them from the frost.

CHARCOAL AS A BLANCH FOR CELERY.

A WRITER in the *Gardener's Monthly* says: "Permit me to coin a noun expressive of a new use to which I have lately put this useful substance.

As a *mulch*, its value is universally recognized. As a *blanch*, I find it superior to any material I have ever tried, including earth, dry sand, sawdust, tan-bark, leaves, hay, litter, etc. Its advantages are manifold: no slug or insect will harbor in it; it drains perfectly; retains the solar warmth without over-heating the plant; absorbs all the ammoniacal gasses arising from the application of liquid or other fertilizers; will not rust the stalk; is easily washed out of the celery when dug, and can be used many times over with little loss. By proper management, also, two rows of celery may be grown where one is by the old method.

Dig trenches two feet apart, about eight inches wide, and six deep, and *fill up to the level of the ground* with a rich compost of loam, well decomposed manure, and *tanners' hair refuse*, (the latter being the best possible food for celery, and obtainable at the same price as stable offal,) and set out the plants about eight inches apart in single rows. On either side of the rows, about six inches distant, commencing at one end, drive two stakes, say three feet long, and one to one and a half inches square, one inch apart, to allow a board to slip in between them, and repeat the stakes at intervals of five feet, or thereabouts, the entire length of your rows of plants; then between the stakes put boards twelve to fourteen inches wide, and a piece of board at each end of the trench, connecting their ends.

The young plants will need shading for a few days after transplanting, if the trenches run north and south; if east and west, they will not require it.

Draw the earth slightly away from the base of the boards, to form a *feeding trough*, into which pour liquid manure frequently during the growing season. When the leaf of the *central stalk or heart* of the plant shows itself above the board, fill in the whole space with coarsely pulverized charcoal (cinders from the smoke-stack of locomotives, or the braise of old charcoal hearths), holding the stalks snugly together in the left hand while filling in with the right. After a few days, place a second set of boards, which may be connected by cross-pieces nailed on at intervals on the top of the first, and repeat the blanching as before. I have found two blanchings to be sufficient.

For winter celery, the trenches should be dug four feet apart, one and a half feet wide, and the plants in two rows nine inches asunder.

They may be banked up in the usual way, first throwing a little litter on the top. Celery thus treated will keep perfectly; the loose texture of the charcoal preventing its becoming solid by the action of frost.

It may be objected that the above plan is more expensive than the traditional method; but it will be productive of so much higher quality, longer blanched stocks, greater crispness and whiteness, and certain exemption from rust and decay, as fully to warrant the *apparent* increased outlay. If the boards are well coated with gas-tar or good boiled linseed oil, they will last many years; and the charcoal is worth, for general garden purposes, more than its cost, if not required again for blanching.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

To Dry and Cook Sweet Corn.—Soon as the corn is fit for the table, husk and spread the ears, in an open oven, or some fast drying place. When the kernels loosen shell the corn, or shell soon as you can. Then spread upon a cloth to dry in the sun, or on paper in a warm oven; stir it often that it may dry fast and not overheat. It more resembles the undried by its being whole, is sweeter, and retains more of its natural flavor by drying faster. When all dried, expose it to the wind by turning it slowly from dish to dish; the wind blows off all that troublesome white chaff.

In the morning of the day it is wanted, look it over and wash it; then boil gently in water sufficient to cover it. Refill with hot water if more is needed. A short time before you dine (it should now be tender and nearly dry), add some sweet milk, or cream, pepper and salt to taste; a little sugar is an improvement. If the cream is not perfectly sweet, it curdles.

How to Cook Asparagus.—Wash, and tie it in a bunch; put it in boiling water and let it cook till tender; then remove it with a skimmer to a turreen, and add butter to suit the taste. Serve with vinegar as for greens.

Another Way.—Cut the asparagus in small pieces and put in a frying-pan; cover with water, adding a little salt; have ready light bread, toasted and buttered; when the asparagus is tender, pour it with the broth over the toast, and serve immediately. This is a nice dish for the sick.

Green peas can be cooked in the same way very nicely.

To make Hard Soap.—One of your correspondents—C. A. Chase, Ohio—wishes a recipe for making hard soap. I think if he will try this one he will be pleased with it. Take six pounds of soda, seven pounds of grease, three pounds of unslaked lime, and four gallons of water. Put the soda, lime and water in a pot, and boil until they are dissolved; let the dregs settle; pour off the liquid and throw away the dregs; add the grease to the liquid and boil until it is of the consistency of honey; then pour it off to cool; set it in a dry place, and in a few days it will be dry enough for use.

Floating Island.—A nice dish for tea may be made in the following way: Beat the whites of two eggs to a stiff foam, which pour upon a quart of milk previously set to boil; when the milk boils, the foam is done and you may take it off. Beat the yolks of five and whites of three eggs together, with sugar and salt to taste, and stir into the boiling milk; let it boil and place in your sauce dish, with the foam floating on the top. You may season with lemon or vanilla.

Steam Pudding.—One cup sour milk, one teaspoonful cream tartar, one-half teaspoonful soda, two eggs, one teaspoonful salt; make as thick as griddle-cakes, and steam one hour; add whatever fruit you like.

Fancy Biscuits.—One pound of almonds, one of sugar, and some rose water. Beat the almonds fine and sprinkle with the rose water; when they are smooth to the touch, put in a pan with flour sifted through a fine sieve; put the pan on a slow fire to dry the paste till it does not stick to the fingers; keep stirring to keep it from burning; then take it off and make it into fancy shapes; you may ice them, or not.

Blackbery Wine.—Measure your berries and bruise them; then to every gallon add one quart of water. Let the mixture stand twenty-four hours, stirring occasionally; then strain off the liquor into a cask, to every gallon adding two pounds of sugar. Cork tight, and let it stand till the following October, and you will have wine ready for use without any further straining or boiling.

To Clean Silk.—I have seen a good receipt for cleaning all kinds of silk, which I have used with good effect. Take equal quantities of alcohol, wood ashes, soft soap, and molasses. Mix them, and rub with a cloth on the silk; afterward rinse in clear water with a little salt or alum.

Your silk will look as good as new if it has never been washed before.

Cauliflower.—This vegetable suffers worse in the hands of the cook, if possible, than in those of the gardener.

Put a good firm head in a sauce-pan of boiling soft water; cover closely, and not cook one minute after a fork will pass readily through the stem; drain and pour over melted butter.

Drying Unpared Peaches.—Wash the peaches thoroughly, until the down is rubbed off. Cut them from the seed, and lay them skin downward on earthen ware or new tin. Heat them in the oven until they are scalded, not browned; then dry in the sun, or by the stove.

Cocoa-nut Cake.—One pound sugar, one-half a pound butter, three-quarters of a pound flour, five eggs, one-half a teaspoonful soda, one grated cocoanut.

Batter Pudding.—One quart of sweet milk, five eggs, flour enough to make a thin batter; bake half an hour. Serve with hot wine sauce.

Lemon Pie.—Two lemons, two eggs, two cups of sugar, two-thirds of a cup of cream; grate the rind of the lemons and cut the pulp fine.

Coffee Cake.—One cup strong coffee, one cup butter, one cup molasses, one cup sugar, one teaspoonful soda; spices to your taste.

Crullers.—One tablespoonful butter, one tablespoonful sugar, one egg, one-half teaspoonful soda in three tablespoonsful of milk.

Crumpets.—Two pounds of flour, two eggs, one-half teacup of yeast, one pint of sweet milk; a little salt.

Currant Wine.—One quart currant juice, two quarts soft water, four pounds best brown sugar.

Sausage.—Ten pounds of meat, three ounces of salt, one ounce of pepper; sage to your taste.

EDITOR'S TABLE.

New Advertisements this Month.

Mend Your own Tinware—A. J. Root & Co., Medina, Ohio.
Pure Blood Ayrshire Cattle—Patrick R. Wright, Cobourg, C.W.
Short-horn—T. L. Harison, Morley, St. Lawrence Co., N.Y.
Grapes—Wm. R. Prince & Co., Flushing, N.Y.
Suffolk Swine—Josiah Pickney, Boston, Mass.
Electric Weather Indicator—Lee & Co., Newark, N. J.
Just Published—C. M. Saxton, Barker & Co., New York.
Iron Amalgam Bells—Hedges, Free & Co., Cincinnati, O.
Reaping and Mowing Machine—Seymour, Morgan & Allen, Brockport, N.Y.
Strawberry Plants—C. W. Seelye, Rochester, N.Y.
Turnip Seed—J. M. Thorburn & Co., New York.
New Publications—C. M. Saxton, Barker & Co., New York.
Thorough Bred Cattle—G. Miller, Markham, York Co., C.W.
Female Agents Wanted—Marie Louise Hankins & Co., N.York

A New Offer—Extra Inducement to Form Clubs.—We will send eight copies of the *Genesee Farmer* for the current half-volume (July to December, inclusive), and eight copies of the *Rural Annual and Horticultural Directory* for 1860, for three dollars (37½ cents each), and an extra copy of the *Farmer* and *Annual* to the person getting up the club.

The Cattle Disease in Massachusetts.—The Legislature of Massachusetts, at its extra session convened for the purpose, has passed two bills for the suppression of the disease among cattle known as Pleuro-pneumonia, now prevailing in some parts of the State. We can not give the bills in full; their most important provisions are, briefly, as follows:

Cattle which are infected, or have been exposed to infection, shall be inclosed in a suitable place and kept isolated—the expense of their maintenance to be defrayed, one-fifth by the town and four-fifths by the State. The cattle may be killed at the discretion of the constituted authorities, and their value paid to the owners. The same authorities may also prohibit the departure of cattle from any inclosure, and also exclude cattle therefrom. They can also prohibit the passage of cattle through the town or city, or of bringing them into it. All cattle that are diseased or have been exposed to the infection to be marked on the rump with the letter P.; and no animal so branded shall be sold or disposed of without the consent of the authorities. All who know, or have reason to suspect, of the existence of the disease among their cattle, must give notice of the fact to the authorities.

In addition to the local authorities, three persons are appointed as Commissioners to examine into the nature of the disease, to attend the hospitals or quarantine stations, and to make a report of them to the Governor and Council.

The bills were passed June 12th, and take effect at once.

To carry these provisions into effect, an appropriation of $100,000 was made.

Notes on the Weather from May 15th to June 16th, 1860.—The first half of May was warmer than any in the last 23 years, being 61.4°, or 8.2° above the average of this part of the month in so many years. This is 1.7° above the average for the same time in May, 1859.

The month continued to be warm to its close. The mean of the last half was 62.1°, or 4.4° above the average for the 23 years, and more than a degree above this period in last year.

Of course the mean of the month was high, being 61.8°, or 5.7° above the average for May in 23 years, and about 1° above that of May, 1859. This makes May, 1860, better than any May in 23 years.

The effect of the warmth has been seen in the rapid progress of vegetation, and the early appearance of some fruits and vegetables, as well as in the heading of winter barley, rye and wheat. Early cherries began to be offered in the market before the end of the month, and some strawberries were nearly ripe on the 31st.

The quantity of water, 1.41 inch, is much below the average, but vegetation has received enough for immediate use. In the five months of this year, only 7.24 inches have fallen, not one-quarter of the annual mean.

The month has been healthful, and for the operations of agriculture and horticulture, excellent. The fine weather, and the rich foliage and abundant flowers, have made the month very beautiful.

The 20th was a cold day, and frost was on the railroad track at the east, but clouds and wind prevented any frost in this vicinity.

Thunder showers have occurred, but none of severity. But at Cincinnati, on the 21st, was that terrible tornado, so destructive of property and life. It extended from Louisville, Ky., along and up the Ohio to and beyond Cincinnati. It extended over a width of 40 miles, and moved at least 50 to 60 miles an hour.

On the 26th a severe storm at Baltimore, Md.; also at Syracuse, Sodus, etc.; also west of us on the 28th, and on the 30th a tornado at Cattaraugus, Niagara Falls, and in several towns in Canada West, with hail in Orleans County.

The rain and melted snow, for the five months of this year, give 7.24 inches in depth, which is not two-thirds as much as fell in the same months in 1859 or in 1858.

June began with pretty warm weather, but the highest was only 82° at noon of the 14th. The last three days of this half were warm, and a strong wind, caused by a shower north of us, made a sudden change at 6 P. M. of the 15th. Except the rather cool weather of the 9th and 11th—which, however, gave us no frost—the month so far has been very pleasant and fine, and the progress of vegetation great. Cherries and strawberries have become abundant. A small proportion of rain has fallen upon us, while showers and thunder storms have gone south and north of us. The earth is now rather dry, but not a drouth is felt yet.

The average heat of the 15 days of June is 68.5°, not one-third degree above the mean of 23 years. This was 4° above this period in 1859, and very near that of 1858, but 2° above that of 1857.

The lowest temperature at 7 A. M. was on the 10th, tho' the lowest mean was on th 9th.

Violent storms and tornadoes, or heavy thunder showers, have distinguished this half-month. On the 2d at St. Louis, and also in Alton, Ill., was a violent storm. On the 3d, and farther north in Lynn Co., Iowa, and east to Comanche on the Mississippi, and across Illinois north of the Chicago and over Lake Michigan into that State, was a terrific storm of wind, hail, rain, and lightning. The cloud extended downward to the earth in probocis-like form, with sweeping desolation of habitations, crops, fences, and great loss of life. In three minutes the ruin was effected. Others less desolating have occurred in various parts of the land. For a month the elements have seemed to be in great commotion in some localities, while in other have been benignant smiles and prosperous days.

THE WEATHER AND THE CROPS.—We are indebted to several of our correspondents in different parts of the country for notes on the weather and the crops. We have room only for a few extracts:

E. F. BURROWS, Sheboygan Falls, Wisconsin, under date of June 11th, says: "We have been visited with abundant showers during the past three or four weeks, and crops, which were then suffering for want of rain, now promise an abundant harvest. Some of the showers were accompanied with hail, which did some damage—one house lost over 100 panes of glass. Some of the hail stones measured 1¼ inches in diameter.

"The cut-worm is troublesome in some parts of the country—even cutting down fields of wheat! One man, near this village, has had to re-sow three acres with other grain, the worms having destroyed almost every stalk of wheat.

"In other fields they work in spots, sometimes cutting down strips, a few feet wide and several rods in length, where it did not come up as soon as the rest, and was more tender. As the stalk grows older and tougher, they climb up and work on the leaves."

A. MASON, of Laporte, Indiana, says: "The fly is eating up nearly all our wheat in this county, according to what I see, and we shall not have half a crop. I never saw such wholesale havoc in my life. My wheat looked nice in the spring, but to see the change now is very discouraging. One of my neighbors has 40 acres; he says he would take two dollars for it. Another has between two and three hundred acres; he says it will hardly pay for cutting. So I hope some one will find out some plan to destroy or get round the fly some way. The frost has killed most of the apples and cherries here. No peaches to speak of."

[We do not know what is meant by the "fly." Is it the chinch-bug?—EDS.]

J. H. H., of Augusta Co., Va., says: "The wheat crop in Virginia is very unpromising. The joint-worm, fly, and the frost, have made the bright prospects of many farmers to wither. There are hundreds of acres of wheat in this county that are not worth reaping. And the frost of April destroyed the fruit totally in some sections of the country.

The Detroit *Tribune* says: "The accounts respecting the crops are generally very favorable, but there are, unfortunately, some exceptions. Between Dayton and Kalamazoo, a formidable enemy has made its appearance in the shape of a kind of maggot; and a large number of fields are said to be almost entirely devastated. The hay crop will be enormous."

The Maysville (Ky.) *Eagle* says: "The wheat harvest of Kentucky will produce a lighter yield than has been for years. The wheat in that part of the State will not supply more than is required by the farmers, and home demand."

Henderson, Ky.—G. W. PRIEST, in the *Ohio Farmer*, says: "The wheat crop is very short—not more than one-third average—on account of winter-killing. Small crop of oats sown, but is promising."

Crops in Fairfield Co., Ohio.—J. O. SAIN, in the *Ohio Farmer*, says: "The weevil [midge,] has made its appearance in this section, in large numbers. Smooth wheat, which appears to have stood the winter freeze better than the Mediterranean, is literally 'alive' with them. A good crop in this country is getting to be considered quite rare. Oats and rye look well. There is a good prospect for a large crop of apples and all small fruits."

THANKS—THANKS—THANKS.—Our friends have already sent us about fifteen hundred new subscribers to the half-volume of the *Genesee Farmer*, commencing with this number. We thank them most sincerely. This encouraging appreciation of our efforts to furnish a cheap and valuable monthly journal, devoted exclusively to the interests of agriculture and horticulture, is most grateful to our feelings. Our liberal offer of Cash Prizes is designed to repay, as far as possible, all who labor to increase the circulation of the paper; but few of our friends seem to compete for them. We seldom receive more than five subscribers in a club. In this case we send a *Rural Annual* to the person making up the club. If any have not received it, through inadvertance on our part, we will cheerfully forward it on being notified of the fact. Those who have sent five subscribers and one dollar, can have three more for fifty cents (eight for $1.50), and any greater number at our lowest club rates—18¾ cents each.

DON'T FORGET THE PREMIUMS.—Few of our friends are taking any notice of our Cash Prizes for those who get up clubs to the current half-volume of the *Genesee Farmer*. The premiums are the same in number and amount as last year. To show about how large—or rather how *small*—a club will probably be necessary to take one of these Cash Prizes, we may state that last year a club of 22 subscribers to the half-volume took a prize of $1; 23 a prize of $2; 24, $3; 25, $4; 27, $5; 28, $6; 29, $7; 30, $8; 32, $9; 36, $10, etc. Are there any of our subscribers who can not take one of the prizes?

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY.—We have just struck off another edition of three thousand copies of this work for 1860. Not a reader of the *Farmer* should be without this work. It will be sent prepaid by mail to any address for 25 cents.

The *Rural Annual* has been published for five years—1856-7-8-9 and '60. The whole five volumes will be sent prepaid by mail for $1.00.

Our Friends at post-offices where we have but one or two subscribers, would greatly oblige us by acting as agents for the *Genesee Farmer*. Now is the time to introduce the paper. The present number commences the half-volume for 1860. We will send five copies for one dollar (20 cents each), and a *Rural Annual* to the person getting up the club. Other inducements for larger clubs will be found in our columns. Our friends residing in places where we have now but few subscribers, could easily take one of the largest of our Cash Prizes. Again we ask *you*, kind reader, to aid us in this matter.

Inquiries and Answers.

Cattle Disease.—I would like to know your opinion in regard to the cattle disease called the *Pleuro-pneumonia*, which is now prevailing in the north part of Worcester county. The State Committee has caused to be killed about one thousand head already. It seems to me to be a great waste of property to kill all cattle that have been exposed to the disease. Is there no other remedy?—Asa H. Pope, *North Oxford, Mass., June* 5, 1860.

We can give no opinion on this subject. If the disease can be arrested by the slaughter of all the affected cattle, it will be a great blessing—although it may appear a great waste of property. We were in England when the disease raged there some years ago. We have known several head of cattle to be badly affected in a herd; some of which recovered, and many others in the same herd were not attacked at all. We were on the farm of a large dairyman at Moreton Corbet, Shropshire, when the disease appeared in the neighborhood. He immediately drenched all his cows with half a pound of Epsom salts, and a quarter of a pound of sulphur, and two ounces of spermaceti, dissolved in a quart or three pints (we are not sure which,) of warm water. His entire herd escaped, although the cattle on an adjoining farm were attacked and two or three died. We can not say that the medicine he used was the cause of his escape, or that experience has shown it to be generally useful.

What is the Largest Pig on Record.—(R. T.) The largest pig we recollect ever to have heard of, was one of the old Cheshire breed. Mr. Culley, in his work entitled *Observations on Live Stock*, published in 1807, makes the following statement in regard to it:

"On Monday, the 24th of January, 1774, a pig (fed by Mr. Joseph Lawton, of Cheshire) was killed, which measured from the nose to the end of the tail, three yards eight inches, and in height four feet five inches and a half; when alive it weighed 12 cwt. 2 qrs. 10 lbs.; when killed and dressed, it weighed 10 cwt. 3 qrs. 11 lbs. avoirdupois. This pig was killed by James Washington, butcher, Congleton, in Cheshire."

If any of our readers know of a more gigantic specimen, we should be glad to hear from them.

Measuring Hay.—(E., *Cockville.*) As you say, the rules given for ascertaining the weight of hay by admeasurement vary considerably. We have given all the information we possess on this subject. We should be glad of reliable data in regard to this matter.

The Ox-eye Daisy.—(*Lewis Co.*) The best way to get rid of this weed is to cut it before the seed is formed. In this way you will check its propagation, and the mown weeds, when as thick as you mention, will afford very fair hay.

Carrots vs. Parsneps.—I would like to know which are the most nutritious and profitable for feeding stock, especially horses, carrots or parsneps?—R. W. McC., *Wiloughby, C. W.*

Neither is perhaps most profitable under all circumstances. Carrots are of all roots the best for horses; for cattle, the parsnep is preferred. Their *ultimate* composition is very similar to the carrot, but they contain about 4 per cent. less water, and are consequently more nutritious. Unlike the carrot, there is no soluble albumen (white of egg) in parsneps, but in its place we have casein (cheese). The starch, which we find in considerable quantity in the parsnep, (3¼ per cent. in the fresh root and 19¼ in the dry,) is replaced by sugar in the carrot. From their ability to sustain severe frost without injury, parsneps are especially worthy of cultivation as a root crop by the Canadian farmer. They may be left in the ground all winter, and are then considered better for feeding stock in spring than any other root; and when fed to cattle, cause them to yield milk of a richer quality. They may be grown on almost any soil, if deeply plowed and cultivated; will bear heavy manuring, and yield 600 bushels or more per acre. Care must be taken that the seed sown is not more than one year old, otherwise it is not certain to grow. Parsneps should be sown as early in the spring as the ground is in good working order. Carrots can be sown with advantage considerably later than parsneps, and prefer a rather light soil. If properly cultivated they will yield from 500 to 1000 bushels per acre, and must not be allowed to freeze.

Soaking Seed Corn in Chemical Solutions.—(S. B., *Green Bay, Wis.*) We did not say (see "Notes for the Month" in the May number) that soaking seed corn did no good, but, on the contrary, that it "facilitated the softening of the husk and rendered germination easier." What we said was, that the small quantity of any ingredient, such as ammonia, chlorine, etc., which seed could absorb from a solution, could have any material effect on the after growth of plants, was inconsistent with all our ideas of the nourishment and growth of plants. We do not think that the seed necessary to plant an acre of corn could absorb from a solution of ammonia, more than one ounce of ammonia. Now, the crop of corn obtains from the soil during its growth say 50 lbs. of ammonia, and it does not seem probable that the extra ounce absorbed by the seed could have any effect, unless it be, as we have said, in softening the husk, etc. So of chlorine, potash, etc. We have applied over 100 lbs. of ammonia per acre to corn this spring, and expect a large crop as the result; but we should expect little increase from the application of one ounce per acre.

Bells.—(M. P. S.) The best and cheapest bells for ordinary purposes are the "Iron Amalgam Bells," manufactured by Messrs. Hedges, Free & Co., of Cincinnati, Ohio. There is one of these bells in the nursery grounds of C. W. Seelye, of this city. It is sonorous and durable, and cost far less than brass or steel bells. You will obtain full particulars by writing to the manufacturers. You will also find their advertisement in another column.

Agricultural Chemistry.—(C. H., *Andes, N. Y.*) Norton's *Elements of Agricultural Chemistry* is the best work for you to commence with. We will send it to you prepaid by mail for 75 cents.

RED ROOT.—Can you or any of your correspondents tell me how to destroy red root in my wheat fields?—J. N.

There is no other way than to pull it out by hand. It is a terrible pest, and every farmer should go over his wheat fields in May and pull it out while in flower. When once it gets possession of a farm, it is exceedingly difficult to destroy it, as the seeds will lie for many years in the soil without germinating. The root is *annual*, and the plant consequently dies after perfecting its seed, but the trouble is to destroy the seed. It has been recommended to harrow the stubble immediately after harvest, so that the fallen seeds might germinate, and then to plant corn, or some other hoed crop, the next summer, so that the plants might be destroyed. We have heard it said that two successive crops of buckwheat would destroy red-root, but have had no experience on this point. We should be glad if some of our correspondents would give us some light on this subject.

BUDDING PEACH TREES.—Can you or any of your readers inform me if the Peach is "true to the pit?" that is, if the tree bears the same kind of fruit as the pit planted? If not, when is the best time to bud or graft, and how?—H. M. H., *Tioga Co., N. Y.*

The varieties of Peaches do not reproduce themselves from seed.

The proper time for budding in this vicinity is August and September—the actual time of the commencement and ending of the season depending much upon the weather. As soon as the buds are well developed, it may be regarded as a proper time to commence budding.

PROPER SOIL FOR APPLE ORCHARDS.—I have recently purchased a small farm, the soil of which is a good sandy loam, with some limestone and hard beds, with a subsoil which is generally a mixture of gravel, clay, and coarse sand—clay predominating. Would you consider such a soil well adapted for apple trees? and what kinds would you recommend for an orchard of 100 trees?—J. A. S., *Paris, C. W.*

For your latitude, the following are some of the most suitable varieties—the proportions of which must be adopted to suit circumstances:

Red Astrachan, Early Harvest, Early Strawberry, Golden Sweet, Fall Jennetting, Fall Pippin, Gravenstein, St. Lawrence, Ramlo, Baldwin, R. I. Greening, Roxbury Russet, Golden Russet, English Russet, Talman's Sweet, Fameuse, Pomme Gris.

APPLE ORCHARD.—I wish to set out an orchard in the spring, and wish to know the most profitable, thrifty, and hardy trees, to set out in this northern climate. * * * The land is a fine clay loam, with limestone and clay bottom; it is warm and excellent clay land.—D. W. G., *Allisonville, Prince Edward Co., C. W.*

The answer to the previous question will apply to this.

DAIRY FARMING.—(M. B. ADAMS.) The best work on this subject is "Milch Cows and Dairy Farming," by C. L. FLINT, Secretary of the Mass. Board of Agriculture. You can obtain it from the publishers, CROSBY, NICHOLS, LEE & Co., Boston, Mass., who will send it prepaid by mail to any address on the receipt of $1.25. It is a book which we can not too highly commend; we regard it as the best book on the subject in the English language.

CRANBERRY PLANTS.—(W. H., *New Germantown, N. J.*) W. H. STARR, of New London, Conn., advertises the plants for sale, and will answer all your inquiries if you correspond with him.

POISONED CATTLE.—A friend of mine had a valuable Durham bull, a yearling, which was observed to be sick about 7 A. M. He was lying down at the time, remained in that position about one and a half hours, got up and went about three yards and fell down, seemed to suffer great pain, frothed at the mouth and nose and died in about three-quarters of an hour afterward. The same party lost within two days afterward two valuable grade cows, having all the symptoms which the bull had. The pasture on which they were grazing having been changed several times during the summer, the last change was to that of a low, swailly piece of ground, having around the edges of it wild parsneps growing. My friend thinks the cattle acted as if they had partaken of something poisonous. If so, would wild parsneps produce those symptoms? or, if not, would anything growing upon a low, swampy piece of ground produce such results? Remember, this was in the early part of October, before anything was frozen. If it was from having partaken of wild parsneps, what are the real symptoms and what the best antidote? GEO. A. GURNETT, *Ancaster, C. W.*

THE above has been overlooked for some time, or it should have appeared sooner. Wild parsnep is poisonous, especially the root; but we do not think the cattle would eat it—at least, not in sufficient quantity to cause death.

TURNIP SEED.—(W. S.) You can get the seed of the variety of turnip you mention from Messrs. J. M. THORBURN & Co., New York. They are honorable men, and you will doubtless get good seed from them. You will find the price given in their advertisement in another column.

LUMP IN A COW'S THROAT.—A hard lump, some four inches in diameter, has appeared under the jaws of my cow, below the gullet, and about on a line with the roof of the tongue. The lump is most apparent when the head is extended or depressed—eating, drinking and milking as usual. The knowing ones here are puzzled as to its cause and consequence. Will some of your correspondents give the result of experience or observation in relation to this?—C. S., *Niagara City, N. Y.*

PLANS FOR DWELLINGS AND BARNS.—Will some of your numerous subscribers give us some drawings of houses, with the plans? American style, two stories, cost from $1,500 to $2,000. Also a convenient barn, with manure cellar—cost $1,000. There are no models down here to build from.—C. W., *Falls Church, Fairfax Co., Va.*

WHITEWASHING FRUIT TREES—TAN-BARK AS A MULCH.—Fruit trees are often washed without any injurious results that we are aware of, but is thought by many to destroy hurtful insects.

Fresh spent tan-bark is injurious to plants; we should much prefer to use saw-dust.—J. C., *Cox.*

WEAK EYES IN CATTLE.—Can I do anything for a cow that can see very well in daylight, but after sunset her eyesight fails her, and at dusk she can not see at all. On a good moonlight night, she can see a very little. If any of your correspondents can answer this it will be thankfully received.—DONALD MCINNIS.

EGG PLANT.—Having just obtained and sown a few *Purple Egg Plant* seeds, I wish to know how to cultivate this vegetable, and whether it is raised for ornament or for food; and if the latter, how they should be cooked.—W. H. H. P., *St. Lawrence Co., N. Y.*

BREEDS OF HORSES.—Will some of your correspondents favor us with a chapter on the different breeds of horses; which is best suited to the farmer; also, what race commands the highest prices?—A. MARTIN.

LOAM.—I would like to know if there is any amount of loam found at the foot of limestone cliffs, and if it is a good fertilizer and how to apply it.—J. E. H. CLUTTBRIDGE.

POISONOUS PARSNEPS.—Are parsneps which have grown in an old garden, that has not been cultivated for a few years, poisonous?—A. SHOOP, *Kittaning, Pa.*

Books, Pamphlets, &c., Received.

CHAMBERS' ENCYCLOPÆDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Parts 13 and 14. New York: D. Appleton & Co. Price 15 cents per number.

THE NEW AMERICAN CYCLOPEDIA: A popular Dictionary of popular Knowledge. Edited by George Ripley and Charles A. Dana. Vol. 9 Hay—Jer. New York: D. Appleton & Co. 1860. L. Hall & Bros., agents for Rochester and vicinity. Price $3 per volume.

GRASSES AND FORAGE PLANTS; A Practical Treatise, comprising their Natural History, etc., etc. By C. L. Flint, Sec'y of the Mass. Board of Agriculture. With 170 illustrations. Fifth Edition, revised and enlarged. Boston: Crosby, Nichols & Co. Price $1.25.

A VOYAGE DOWN THE AMOOR: With a Land Journey through Siberia, and incidental Notices of Manchooria, Kamschatka and Japan. By Perry McDonough Collins, United States Commercial Agent at the Amoor. New York: D. Appleton & Co. Price $1.25.

CASSELL'S POPULAR NATURAL HISTORY. Profusely Illustrated with Splendid Engravings and Tinted Plates. Published in parts on the 1st and 15th of each month. No. 8. Price 15 cents. New York: Cassell, Peter & Galpin, 37 Park Row.

THE TEMPERANCE SPEAKER. Compiled from various Sources for the use Bands of Hope, etc., etc., in their Monthly and Weekly Meetings. By Rev. John Marsh, D. D. New York: American Temperance Union. Price 25 cents.

STORIES OF INVENTORS AND DISCOVERERS IN SCIENCE AND THE USEFUL ARTS: A Book for Old and Young. By John Timbs, F. S. A. With illustrations. New York: Harper & Bros. Price $1.

OUR FARM OF FOUR ACRES, and the Money we Made at it. With an introduction by Peter B. Mead, Editor of the *Horticulturist*. New York: Saxton, Barker & Co. Price in paper, 25 cents; cloth, 50 cents.

ON THE ORIGIN OF SPECIES BY MEANS OF NATURAL SELECTION; Or the Preservation of Favored Races in the Struggle of Life. By Charles Darwin, M. A. New York: D. Appleton & Co. Price $1.25.

THE EIGHTEENTH CHRISTIAN CENTURY. By the Rev. James White, author of "History of France." With a copious Index from the 2d Edinburgh edition. New York: D. Appleton & Co. Price $1.25.

LIFE AND TIMES OF GEN. SAM. DALE, the Mississippi Partisan. By J. F. H. Claiborne. Illustrated by John McLennan. New York: Harper & Bros. Price $1.

LIFE IN SPAIN: Past and Present. By Walter Thornbury, author of "Every Man his own Trumpeter" etc. With illustrations. New York: Harper & Bros. Price $1.

SELF-HELP: With Illustrations of Character and Conduct. By Samuel Smiles, author of "The Life of George Stephenson." New York: Harper & Bros. Price 75 cents.

AN APPEAL TO THE PEOPLE In Behalf of their Rights as Authorized Interpreters of the Bible. By Catharine E. Beecher. New York: Harper & Bros. Price $1.

PASSING THOUGHTS ON RELIGION. By the author of "Amy Herbert," "Thoughts for the Holy Week," etc. New York: D. Appleton & Co. Price 75 cents.

COUSIN MAUDE AND ROSAMOND. By Mrs. Mary J. Holmes, author of "Lena Rivers," "Maggie Miller," etc. New York: C. M. Saxton & Co. Price $1.

MISREPRESENTATION: A Novel. By Anna H. Drury, author of "Friends and Fortune," "Eastbury," etc. New York: Harper & Bros. Price 50 cents.

FRIARSWOOD POST-OFFICE. By the author of "The Heir of Redclyffe," etc. New York: D. Appleton & Co. Price 50 cents.

"HORATIUS" Quinti Horatii Flacci Opera Omnia ex Recensione. A. J. Macleane. New York: Harper & Bros.

LIFE OF ANDREW JACKSON. In three volumes. By Jas. Parton. Vol. 2. New York: Mason Bros. Price

STORIES OF RAINBOW AND LUCKY. By Jacob Abbott. New York: Harper & Bros. Price 50 cents.

ÆSCHYLUS EX NOVISSIMA RECENSIONE. Frederici A. Paley. New York: Harper & Bros.

THE LONDON QUARTERLY REVIEW: January, 1860. American Edition, Vol. 53, No. 1. New York: Leonard Scott & Co., 59 Fulton Street. Price $5 a year.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,
Rochester, N. Y., June 19, 1860.

Transactions in Flour and Grain during the past three months have been characterized by the same unsteadiness, in regard to prices, which has been a prominent feature of the trade for a long time past. An advance in foreign markets has stimulated the inquiry for shipment, but the speculative feeling which has followed, and the increased firmness of holders, have very materially restricted the export trade. This state of things is matter of regret, inasmuch as it leads to an accumulation of stock at a season of the year when some kinds of Flour and Grain are liable to become heated and otherwise out of order. There is, moreover, no doubt of there being on hand, in the aggregate, an ample supply of breadstuffs for ordinary purposes, and it would seem to be desirable that prices should be kept sufficiently low to admit of an unrestricted trade, in order that the present rather large stock may be reduced, previous to the receipt of the new crop. We are aware that, between the present time and the next harvest, unfavorable events may occur which may lead to great changes in market values; but the prospect at present is favorable, and indicates no probability of a legitimate or permanent advance, but rather the reverse. In the various countries of Europe, the markets, generally, are calm and steady, with favorable weather, and fair prospects in regard to the growing crops. In England, the price of Wheat and Flour is relatively higher, compared with New York, than it has been for a long time past, and the difference is sufficient to leave a small profit on shipments, after deducting transportation charges and other incidental expenses. There is, consequently, a fair demand for Wheat and fresh ground State Flour, while old State and Western flour is heavy and dull of sale.

The market for coarse Grain is not active. Rye is steady, and tolerably firm. Corn is in fair demand, at rather better rates. Barley is neglected. Oats are dull, with a good supply.

The Pork market has recently been in a state of activity. The operations have been mostly of a speculative character, with a demand for future delivery at improving rates. The demand for local consumption has, thereby, received a check. A want of confidence has been the result, and prices are receding, with a dull trade. Beef has been firm, but as the stock is rather large, there is more disposition to sell. Bacon is scarce and improving. Cut Meats are steady. Prime Lard is scarce and firm, with an upward tendency. Butter is dull and declining, with a plentiful supply. Cheese is steady and in fair request for both home trade and export.

The market for Beeves is extremely dull and discouraging. The rates obtainable are 25 to 30 per cent. below those current at the same time last year. The quality of the cattle offered is fair, but the market is overstocked, and the inevitable law involved in the respective relations which demand and supply bear to each other, governs prices accordingly. The supply of Veal Calves is large, and the market is dull. Sheep and Lambs are abundant, and are sold at lower rates. Swine are not so plenty, and prices are higher with a good demand.

The demand for fine Wool is steady, and quite equal to the supply. Inferior and medium grades are dull and lower. In regard to the future, there is little doubt that prices will rule as high as they did last year, especially for the best qualities. Various circumstances concur to warrant this opinion, prominent among which is the light stock at present on hand, the mills generally in active operation, and an easy money market.

ROCHESTER MARKET.—June 19.

FLOUR—Is rather dull of sale. It is difficult to realize $6 for best extras.

GRAIN—Wheat $1.20@$1.50. Best white Canada, $1.60@$1.50. Oats, by weight, 34c. Rye, 72c. Barley, 69c. Beans 50@60c. Corn, 58c@56c.

PROVISIONS—Mess Pork, $17@$20 per bbl. Hams—smoked, 10c. Shoulders do, 6c@7c. Lard, 10c@11c. Butter, 10c@13c. Cheese, 8c@10c per lb. Eggs, 11c per dozen. Chickens, 10c per lb. Turkies, 12c per lb. Potatoes, unsaleable at any price.
HAY—$8@$13 per ton.
WOOL—Is selling slowly at 28c@36c per lb.

NEW YORK MARKET.—June 16.

FLOUR AND MEAL—The demand for Western and State flour is more active for export. Superfine State and Western, $5.00@$5.10; $5.15@$5.22 for extra do.; $5.25@$5.35 for choice do.; for shipping brands of Ohio round hoop extra, $5.35@$5.60. Canadian Flour. $5.25@$5.40 for spring. Southern Flour is dull and heavy. Baltimore superfine, $5.50@$5.90; and $6@$7.50 for fair to choice extra. Rye Flour steady at $3.40@$4.15. Corn meal quiet at $3.40@$3.50 for Jersey.
GRAIN—Wheat market irregular, Chicago spring, $1.19@$1.19½; Racine spring, $1.22@$1.22½; Milwaukee club, $1.23@$1.25; good to prime white Indiana. $1.38@$1.40; red Ohio, $1.28. Rye in fair demand at 85c@86c for Northern. Oats firm at 38½c@38¾c for Canadian; 40½@42 for Western. Corn, 61½@62c for Eastern mixed; 62½@64 for sound mixed Western; 67@67½c for round yellow, and 69@70 for Southern yellow.
PROVISIONS—Pork market active at $18.12@$18.25 for new Mess; $17.87½@$17.40 for old do; $18.62½@$18.75 for new Prime. Beef steady at $4.75@$6.00 for country mess, and $11@$12 for extra mess. Hams and Bacon quiet. Lard, 11½@11¾c.

PHILADELPHIA MARKET.—June 16.

FLOUR AND MEAL—Market dull and prices unsettled. Superfine at $5.25; common and extra brands, $5.25@$5.62; fancy, $6.25@$6.75. Rye Flour dull at $5.87½. Corn Meal, $3.87½.
GRAIN—Wheat—Fair and prime Red at $1.30; good Pennsylvania at $1.35; prime Southern at $1.20; fair quality, $1.20, and $1.30@$1.50 for common and prime Southern White. Rye declined 3c. Corn—Prime at 67½c@68c; inferior at 60c@63c. Oats dull at 43c for Pennsylvania, and 40c for Delaware.
SEEDS—Little doing. Clover, in good quality, $4.50@$4.62½ per 64 lbs.
PROVISIONS—Market quiet. Mess Pork in lots at $18.75@$19 per bbl.; Prime, $15. City packed Mess Beef, from $18 to $15. Lard steady, at 12c in bbls. and tierces, and 12¾c@12¾c in kegs. Butter from 8½c@11c for common, and 13c@15c for good roll.

BUFFALO MARKET—June 16.

FLOUR—Market dull and heavy. Superfine, $5@$5.25; extra State from spring wheat, $5.37½@$5.62½; extra Michigan, Iowa, Indiana and Ohio, $6@$6.50.
GRAIN—Wheat dull and heavy. White Canadian, $1.37½; Canada spring, $1.10. No sales in oats. Barley nominal at 60@65c. Rye dull at 78@80c. Peas steady at 60@61c.
PROVISIONS—Market steady. Heavy mess pork held at $17.50; light do, $16.50; prime, $13.50. Beef quiet at $7.50. Bacon quiet at 7½@8c for shoulders; 9½c for plain hams, and 10½@11c for sugar cured.

CHICAGO MARKET.—June 14.

FLOUR—Market heavy, and no sales.
GRAIN—Wheat declined ¾c@1c. No. 1 spring, $1.04@$1.05; No. 2 do., $1.02@$1.02½; rejected, 87@88c; Wisconsin club, $1.07. Oats steady, but rather quiet. Barley heavy—No. 1, 55@56c; No. 2, 50@53c. Rye dull and merely nominal at 70c.
PROVISIONS—Generally quiet Butter in good demand. If well packed. Common Firkin, 8½@9c; best Western, 10@11c; Ohio and Michigan, 12@13c per lb. Eggs dull at 9c per doz.
CATTLE.—Beef Cattle, common, $2.50@$2.75; extra and choice, $3.75@$4. Fat Hogs $4.75@$5 per cwt. gross. Sheep, $3@$3.50.
HIDES—Steady. Green, prime, 6½@ 7c; green salted, 7½@8c; dry flint, 15@15½c. Sheepskins, 10c@15c. Lambskins, 20@40c. Tallow, scarce at 9¾c per lb.
WOOL—In good request. Fleece—common, 25@28c; ¼, 28@30c; ½, 31@35c; ¾, 35@37c; fancy, 38@40c.

TORONTO MARKET.—June 16.

FLOUR—No sales within the last few days of sufficient importance on which to base operations. The following are about the average rates: Superfine, $5@$5.08; extra, $5.75@$6; double extra, $6.25@7.
GRAIN—Wheat freely offered and transactions large. Best grades realize $1.35—the average price being $1.30 per bushel. Spring wheat, $1.06@$1.07. Barley and Rye—The offerings are limited. The former is steady at 50c@55c, and the latter is nominal at 65c@70c. Oats at 32@34c. Peas active at 60@65c per bush.
PROVISIONS—Pork, no quotations. Fresh Butter, 12c; tub dull at 8@9c for No. 1, and 8c for No. 2, per lb. Eggs, 8½@9½c per dozen. Potatoes 18c@20c per bushel.
WOOL—An active trade is being done in wool. The best samples find ready sale at 26@27½c per lb; ordinary price, 26½c. Sheepskins, unclipped and of recent slaughter, $1.50 each.
CATTLE—First class cattle are worth $6 5 @$7; 2d do., $6@$6.50 per 100 lbs. Calves, $4@$5. Beef hides, $6.50 per 100 lbs. Sheep, $5.50@$4.50. Lambs, $1.75@$2 each.
HAY—Very dull at $9@$12 per ton. Grass is selling freely at 5c per bundle, retail.

LIVERPOOL MARKET—May 25.

FLOUR AND MEAL—Western canal Flour, $5.76@ $6.00 for old, and $6.24@$6.72 for new; Philadelphia, Baltimore, and Ohio, $6.24@$7.20; Canadian, $6.24@$6.72; extra qualities, $6.96@$7.20; sour, $5.52@$6. Corn Meal, $4.80@$5.04.
GRAIN—American white wheat, $1.66@$1.78; red do, $1.51@$1.58; Canadian white, $1.44@$1.58; do. red, $1.51@$1.58. Indian corn—white, $1.08@$1.14; yellow, $1.06½@$1.05; mixed, $1.02@$1.06¼. All per bush. of 60 lbs.
SEEDS—Clover—American red, 8½@8¾c per lb.
WOOL—Domestic fleece, 11c@40c. Colonial, 16c@32c for the range of qualities.

LONDON MARKET.—May 28.

FLOUR—American sour, $6.24@$6.48; sweet, $6.72@$7.20.
GRAIN—Wheat—American white, $1.50@$1.59; do red, $1.44@$1.62. Indian corn—white, $1.08@$1.17; yellow, $1.06@$1.14, per 60 lbs.
SEEDS—Clover—Red, 8@10c; white, 17¼@19c per lb.
WOOL—Domestic fleece, 34c@40c; soria, 30c@48c per lb.

BRIGHTON CATTLE MARKET.—June 14.

At market, 800 Beeves, 100 Stores, 1700 Sheep and Lambs, 1600 Swine.
PRICES—Market Beef—Extra, $7.50@$8.00; First quality, $7.25; Second. $6.00@6.50; Third, $0@$0.00. Working Oxen—$85@$100. Milch Cows—$39@$41; Common, $15@$19. Veal Calves—$3.00@$5.00. Yearlings—None. Two Years old—$18@$24. Three Years old—$24@$28. Hides—6½c@7c per lb. Calf Skins—11c@ 12c per lb. Tallow—6@6½c. Sheep and Lambs—$1.50@$3.00; extra, $3.75@$4.00 Pelts—$0.50@$1.75. Swine—Fat Hogs, none. Stores, wholesale, 6@7½c; retail, 7c@8½c. Spring Pigs, 10c.
REMARKS.—The market is a little better than last week for a like quality.
Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 28 to 34 per cent.

ADVERTISEMENTS.

A few short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or $2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in *every State and Territory, and in all the British Provinces.* (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

FEMALE AGENTS WANTED.

$3 A DAY.—Agents Wanted to travel for the MAMMOTH "FAMILY PICTORIAL." Only 75 cts. a year. Enclose 6 cts., for a specimen copy, to MARIE LOUISE HANKINS & Co., Publishers, New York City. July—tf

GEORGE MILLER—Importer and Breeder of Short-horn and Galloway Cattle, Leicester and Cotswold Sheep, Markham P. O., Co. York, Canada West. N. B. A few choice Dorking Fowls, bred from imported stock, can be had in autumn. Price $5 per pair. July—1y

C. M. SAXTON, BARKER & CO.,

NO. 25 PARK-ROW, NEW YORK, have recently published: THE YALE AGRICULTURAL LECTURES. 12mo. Cloth. Price ..... 50c.

THE COMPREHENSIVE FARM RECORD. Arranged for 25 years..... $3

THE ORCHARD HOUSE; Or, How to Cultivate Fruits under Glass..... 40c.

THE YOUNG FARMER'S MANUEL; Embracing The Young Farmer's Workshop. By S. Edward Todd. 200 illustrations. Price..... $1 25

HUNT'S PATIENTS' AND PHYSICIANS' AID. A Manual for every family..... $1

COUSIN MAUDE AND ROSAMOND. A new volume by Mrs. Holmes..... $1

CATALOGUES, describing a full assortment of Agricultural Books, sent free to any address. July—1t

Turnip Seed! Turnip Seed!

J. M. THORBURN & Co.,
15 John Street,
New York,

OFFER to the trade and others the following varieties of TURNIP SEED, all of which they warrant of the same superior quality as have heretofore given such universal satisfaction:

Early White Dutch	per lb.,	75 cents.
Red-top Strap Leaf	"	75 "
Red-top	"	75 "
White Strap Leaf Flat	"	75 "
White French, (extra)	"	75 "
Large White Globe	"	50 "
Large White Norfolk	"	50 "
Long White Tankard	"	50 "
Swan's Egg	"	75 "
Vertue's Long White	"	75 "
Green Globe	"	50 "
Waite's Eclipse	"	50 "
Yellow Malta	"	75 "
Yellow Finland	"	75 "
Yellow Stone	"	75 "
Robson's Golden Ball	"	75 "
Yellow Aberdeen	"	50 "
Long Yellow French	"	75 "
Dale's Hybrid	"	50 "
Improved Ruta Baga, (American)	"	75 "
Skirving's "	"	50 "
Purple-top "	"	50 "
Marshall's Purple-top Ruta Baga	"	50 "
Bullock's Heart "	"	50 "
Dickson's Improved "	"	50 "
Laing's " " (extra)	"	50 "
Ashcroft's " "	"	50 "

ALSO—

Round and Prickly Spinach	each	50 "
Corn Salad or Tetticus	"	$1 00

Rose Col'd Chinese Winter Radish, per oz., 20c; per lb., $1 50.

J. M. THORBURN & CO.,
July—2t 15 *John Street, New York.*

STRAWBERRY PLANTS.

THE subscriber offers for sale, ready for planting the latter end of Summer, an assortment of the very best varieties of *Strawberry Plants.*

They will be packed so that they may be sent to any part of the United States by Express or Railroad, and reach their destination in good condition.

In the collection may be found the following sorts:

Bicton Pine,
Black Prince,
Boston Pine,
Burr's New Pine,
Crimson Cone,
Cushing,
Genesee,
Hooker,
Hovey's Seedling,
Jenny Lind,
Large Early Scarlet,
Longworth's Prolific,
McAvoy's Superior,
Moyamensing,
Monroe Scarlet,
Ohio Mammoth,
Peabody's Seedling,
Rival Hudson,
Scott's Seedling,
Triomph de Gand,
Trollopes Victoria,
Walker's Seedling,
Wilson's Albany, &c.

Price—$2 per hundred.

Remittances may be made by mail in current bank notes and postage stamps, properly enclosed in an envelope and addressed to the subscriber.

Descriptive Catalogues will be sent to all who apply and send a stamp for prepayment of postage.

Address C. W. SEELYE,
Rochester Central Nurseries, Rochester, N.Y.

SEYMOUR & MORGAN'S PATENT

Reaping & Mowing Machine,

COMBINED with Palmer & Williams' Patents—which fully secures the exclusive right to this manner of Raking off the grain, and other valuable improvements.

The above machine is now so far perfected that we can confidently offer it to the farmer as a good Mower and Reaper, with the addition of a good and reliable Raker attachment. It is made to cut five feet wide; a smooth edge knife is used for mowing, and the sickle edge for reaping; a quicker motion is given to the knife for mowing by changing pinions, which is easily done. Our wheels are larger than most of those used in other machines, and we claim that the machine runs easy, and is durable and strong, and we warrant it good in every respect.

Our agent for this section, Mr. C. Meriam, has for sale the *Seymour & Morgan Hand-Raking Reaper and Mower Combined*, with improvements, made by Messrs. Warder, Brokaw & Child, in Ohio, and is one of the best combined Hand-Rakers in the market. SEYMOUR, MORGAN & ALLEN.

Brockport, June, N. Y., 1860. July—2t

IRON AMALGAM BELLS.

WE take pleasure in directing those interested to the annexed Price-lists of our cheap Church, School and Farm Bells, which, it will be observed, are offered at about one-third as much as is usually charged for those of corresponding size and weight of brass-composition, and less than half the price of steel, while their sweetness and depth of tone are pronounced by competent judges to be superior to the latter.

These Bells are composed of an amalgam, chiefly iron, which, while it is so much cheaper than the metals heretofore employed for the same purpose, yet seems to possess durability and sonorous qualities scarcely inferior to the former.

FARM, SCHOOL, HOTEL, AND SHOP BELLS,

FITTED WITH YOKE, STANDARDS AND CRANK, COMPLETE FOR USE.

16 inch Bell weighs, with hangings,	65 lbs.	Price,	$6 00
18 " " "	95 "	"	9 00
20 " " "	123 "	"	12 00
23 " " "	200 "	"	20 00

CHURCH, ACADEMY, FIRE-ALARM, AND STEAMBOAT BELLS,

RIGGED WITH YOKE, STANDARDS, TOLLING-HAMMER, AND WHEEL.

28 inch Bell weighs, with hangings,	300 lbs.	Price,	$35 00
32 " " "	500 "	"	55 00
34 " " "	650 "	"	75 00
36 " " "	800 "	"	100 00
40 " " "	1100 "	"	125 00
46 " " "	1250 "	"	150 00

All bells WARRANTED (new one given in case of breakage by ringing) for twelve months from date of purchase, and shipped free of charge for drayage, on receipt of price.

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No. 6 Main Street, between Front and Columbia,
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THE YOUNG FARMER'S MANUAL. By S. Edwards Todd. Containing Practical Directions for Laying out and Working the Farm, and how to Erect Buildings, Fences, Farm Gates, &c. The work also embraces

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With full directions for selecting and using all kinds of farm and shop-tools. The whole illustrated by 200 original illustrations. 1 vol., 12mo.; 459 pages. Price $1.25.

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C. M. SAXTON, BARKER & CO.,
No. 25 Park-row, New York,
Agricultural Book Publishers, and Proprietors of *The Horticulturist.* July—2t

ELECTRIC WEATHER INDICATOR.

EVERY house should have one of these neat and curious instruments, which indicates the weather from 12 to 24 hours in advance. Sent free by mail on receipt of 50 cents, by addressing the manufacturers, LEE & CO., Box 80, P. O., Newark, New Jersey. Liberal discount to agents. July—1t

SUFFOLK SWINE.—The subscribers have on hand and for sale Pure Blood Suffolk Pigs, bred from their importations of 1852, 1853, 1859, and their descendants.

Address JOSIAH STICKNEY or ISAAC STICKNEY, } Boston, Mass.
July—5t

WM. R. PRINCE & CO., FLUSHING, N. Y., will supply during the summer all Native and Foreign Grapes, in pots, packed safely for transportation. Strawberries of every variety after July. Bulbous Roots from July to October. Priced Catalogues sent to applicants who enclose stamps. July—1t

SHORN-HORNS—Several young Bulls and Heifers. Suffolk Swine—all ages. For sale by T. L. HARISON,
July—6t* Morley, St. Lawrence Co., N.Y.

GEO. F. CURWEN West Haverford, Delaware County, Pa. Breeder of DEVON CATTLE and ESSEX HOGS. May 4

FAIRBANKS'

STANDARD SCALES!

ADAPTED TO EVERY BRANCH OF BUSINESS where a correct and durable Scale is required.

Every Farmer and Cattle Dealer should have a FAIRBANKS' SCALE.

Send for a circular. FAIRBANKS & CO., 189 Broadway, New York.

S. W. STEVENS, Traveling Agent. Post Office address, Rochester, N.Y. June—6t

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WOOD'S IMPROVED

MOWING MACHINE,

For 1860, Patented Feb. 22, 1859.

THE SUCCESS of this Mower during the past harvest is without a parallel in the history of Mowing Machines. In introducing it, I offered to the farmers a Mower at a less price than any in use; one that was light, durable, and capable of doing perfect work. It has performed more than I claimed for it: the reduction in price and draft is equal to 25 per cent., as the trials and tests show, (see my pamphlets for 1860.) I have added some improvements to it for this year—a lever arrangement for raising the cutter-bar; some of the parts are strengthened, and the driving-wheels enlarged.

I continue to manufacture, as heretofore, MANNY'S celebrated COMBINED REAPER AND MOWER, with Wood's Improvement. This machine fully maintains its reputation as the best Combined Reaper and Mower yet introduced, and inferior to none as a Reaper or Mower.

I have added to this machine a Self-Raking attachment of my own invention—the most simple in its structure and mode of operation of anything of the kind ever offered to the public.

Price of two-horse Mower, delivered here on the cars..... $80
one-horse do. do. do. do. 70
Combined Machine, do. do. do. 120
Do. with Self-Raking Attachment,.... 140

June—2t WALTER A. WOOD, Hoosick Falls, N.Y.

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80 ft. by 110 ft.....80 ft. diameter.
60 ft. by 90 ft.....70 ft. "
50 ft. by 80 ft.....60 ft. "
15 ft. by 20 ft. fancy.....50 ft. "

For Camp Meetings, Military Encampments, Pic Nics, Fishing Excursions, &c.

24 ft. by 30 ft. | 12 ft. by 17 ft.
16 ft. by 24 ft. | 9 ft. by 12 ft.

Flags furnished with Tents, when required.

Parties wishing to rent, will please address the proprietor, stating what the Tents are to be used for. Also the facilities for transportation. Address JAMES FIELD, Box 701,
June, 1860—3t Rochester, N. Y.

N. B. Several large second-hand Tents for sale cheap—one tent 60 by 90—ten feet wall with seats.

PITTSBURGH WATER CURE—A first-class CURE, in its sixth year. Room for over 100 patients. Send for circular to
June—2t* DR. F. GEASE, Pittsburgh, Penn.

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40 SUPERIOR SPANISH MERINO BUCKS for sale by
June—6t GEO. CAMPBELL, West Westminster, Vt.

ATTENTION, FARMERS!

FROM the unparalleled success of the KETCHUM MACHINE the past season, I am induced to build for the harvest of 1860, A LARGER NUMBER THAN USUAL, and I offer them as the most perfect machine I have ever manufactured, and at prices to correspond with the times.

Howard's New Two-Horse Mower—all iron—light draft—no side draft—no driving fast to have them work well—no clogging—price only $100.

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Combined Mower and Reaper (Iron), with late improvements—took first premium at United States' Fair at Chicago last fall—price $130.

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The improvements consist of a guard finger that will not break nor clog; an outer shoe with roller, that very much assists in turning at the corners, and the direct draft of the machine: a lever with roller, which is to be attached behind the inner shoe, by which the driver in his seat can raise the finger bar over obstructions, assist in backing, and transporting the Machine from field to field.

In ordering the improvements or extras, be particular and give the number of your Machine. Address
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Best grazing and cheese dairy farm, not less than 50 acres, under culture,.....$50 00
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Best cultivated farm, not less than 50 acres, (woodland included,).....$30 00

☞ Competitors for the premiums on farms are desired to give notice to the Secretary, on or before the 1st of July, of their intention to compete; and some member or members of the Executive Committee will be assigned to visit and examine the farms, and report on the same.

B. P. JOHNSON,
Agricultural Rooms, Albany, } Secretary.
April 12th, 1860. } May—3t

PURE BLOOD AYRSHIRE CATTLE,

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HELD BY

PATRICK R. WRIGHT,

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COUNSELLOR IN BUSINESS.

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It Tells You How to make an ASSIGNMENT properly, with forms for COMPOSITION with CREDITORS, and the INSOLVENT LAWS of every State.

It Tells You The legal relations existing between GUARDIAN and WARD, MASTER and APPRENTICE, and LANDLORD and TENANT.

It Tells You What constitutes LIBEL and SLANDER, and the Law as to MARRIAGE DOWER, the WIFE'S RIGHT IN PROPERTY, DIVORCE and ALIMONY.

It Tells You The Law for MECHANICS' LIENS in every State, and the NATURALIZATION LAWS of this country, and how to comply with the same.

It Tells You The Law concerning PENSIONS and how to obtain one, and the PRE-EMPTION LAWS to PUBLIC LANDS.

It Tells You The Law for PATENTS, with mode of procedure in obtaining one, with INTERFERENCES, ASSIGNMENTS and TABLE OF FEES.

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***A liberal Discount to the Trade.

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3 "	"	15 00	37½
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5 "	"	50 00	75
8 "	Round Tile,	80 00	1 25
2 "	Horse Shoe Tile,	8 00	
3 "	" "	12 00	
4 "	" "	16 00	25
5 "	" "	25 00	37½
6 "	Pipe,	60 00	1 00
10 "	"	100 00	1 75

The Tiles are strong, hard burned, and of very superior quality.

Persons wishing Tiles will find it to their interest to call at the office of the Company, 22 Buffalo street, Rochester, before purchasing elsewhere.

A large quantity of Brick always on hand.

For further information, address

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Improved Superphosphate of Lime.

MANUFACTURED and for sale at Division Street Wharf, Newark, N. J., and by the Manufacturer's agents in this and other States.

It is put up in bags of 100 and 150 lbs. each, and marked with the maker's name, to whom orders sent with cash or satisfactory references, here or in New York, will be promptly executed.

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The largely increased sales for the last six years, with the unsolicited Reports of Agents, &c., attest satisfactorily its remunerative results, being found more permanent in its effects than Peruvian Guano, and consequently decidedly more profitable.

It has been the aim of the Manufacturer to make this Manure what it is avowed to be, and the public may rely assuredly that it will continue to be uniform in quality and profitable to the buyer.

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May—6t WM. PATERSON.

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This is the most popular religious engraving ever published in America, and the Sunday Schools to which we have supplied copies thus far have found no difficulty in disposing of from one to two hundred (and in one instance three hundred) in the space of from twenty to thirty days. Christian parents everywhere seem more especially anxious to possess the picture now that it affords the opportunity of encouraging their children in a good work, and affording them a means of moral and religious instruction. Address DAYTON & CO.,

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ECONOMY! DISPATCH!

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meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for limping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

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Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give *entire satisfaction*, or taken back.

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The profit on one hundred copies will secure

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Patent Water-Proof Composition,

WARRANTED to make Boots and Shoes, and all Leather, impervious to water, and last nearly as long again for using it. Peddlers make from $2 to $5 per day selling it. Send stamp for circular. For sale by all dealers in Boots and Shoes, Hardware, Drugs, Notions and Groceries. A. BROWER & CO.,
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"JERSEY" CATTLE—Commonly known as "ALDERNEY." SHANGHAI, or TARTAR Sheep for sale. Apply to
WILLIAM REDMOND,
May—3t 43 Barclay St., New York.

FRESH FRUITS
ALL THE YEAR!
THE YEOMANS'
FRUIT BOTTLE!

FOR Utility, Convenience, Economy and Safety is unequalled for preserving Fruits in a fresh state, in any climate, an indefinite time.

"Having used these Bottles we find them exceedingly convenient, and just the thing needed."—J. J. THOMAS, in *Register of Rural Affairs.*

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VANDERHOOF'S PATENT PAPER BAGS—More convenient and economical than wrapping paper. Premium Fancy Flour and Grain Bags. Send for price catalogue.

June—2t 171 West Street, New York.

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